

**TAB 1  
(part 2)**

**"Punch List"** means the list of any minor items of work designated remaining to be performed or corrected after the occurrence of Substantial Completion, but no later than Final Completion, which are mutually agreed between the Owner and Seller and will not affect the safe and reliable operation of the Project as contemplated under the Power Purchase Agreement and the Contract Documents, which list shall include the date upon which Seller shall commence work on each such punch list item, a reasonable schedule for completion of each such item, and an estimated cost to complete such item.

**"Punch List Holdback"** has the meaning ascribed to such term in Section 4.2.6 of the Supply Agreement.

**"Reference Anemometer"** means each of the freestanding anemometers mutually designated by Owner and Seller for purposes of conducting the Power Curve Test.

**"Reference Turbine"** has the meaning ascribed to this term in Section 3.3. of the Warranty Agreement.

**"Repair Period"** has the meaning ascribed to such term in Section 3.3.6(b) of the Warranty Agreement.

**"Requirements"** has the meaning ascribed to such term in Section 3.3 of the Supply Agreement.

**"SCADA"** means the automated remotely operated supervisory control and data acquisition and monitoring system for the Project to be provided by Owner, and that collects (i) availability and power generation data from each Wind Turbine, (ii) wind direction and speed data, and (iii) other operational parameters describing the status of the Project and the Project Interconnection Facilities.

**"SCADA Contractor"** means the contractor or contractors selected by Owner to provide SCADA.

**"Scheduled Final Completion Date"** means the date which is forty-five (45) days following the Substantial Completion Date.

**"Scheduled Maintenance"** has the meaning ascribed to such term in Section 1.1 of the Service Agreement.

**"Scheduled Substantial Completion Date"** means, with respect to the WTGs, ten (10) business days following the end of the Guaranteed WTG Commissioning Period; provided, however, that to the extent that any delay of the achievement of Substantial Completion is caused by Owner's Work or Excusable Delay, the applicable Scheduled Substantial Completion Date shall be extended one day for each such day of delay.

**"Seller"** means Mitsubishi Power Systems Americas, Inc., a Delaware corporation, in its capacity as Seller under the Supply Agreement and the Warranty Agreement.

“Seller CWP Option Price” has the meaning ascribed to such term in Section 4.1.3 of the Supply Agreement.

“Seller Indemnified Party” has the meaning ascribed to such term in Section 11.1(b) of the Supply Agreement.

“Seller’s Representative” has the meaning ascribed to such term in Section 8.4 of the Supply Agreement.

“Service Agreement” means the Wind Turbine Maintenance and Service Agreement, dated as of the Effective Date, by and between Owner and Servicer, as the same may be amended from time to time.

“Servicer” means Mitsubishi Power Systems Americas, Inc., a Delaware corporation, in its capacity as Servicer under the Service Agreement.

“Servicer Indemnified Parties” means Servicer and its subcontractors and vendors and their officers, directors, shareholders, managers, members, partners, agents, employees, successors and assigns.

“Site” has the meaning ascribed to such term in the Recitals of the Supply Agreement.

“Site Calibration” has the meaning ascribed to such term in the Site Calibration Procedure, attached as Exhibit O to the Warranty Agreement.

“Site Calibration Procedures” means the procedures set forth in Exhibit O to the Warranty Agreement which shall be followed for the performance of the Site Calibration.

“Site Conditions” means the information set forth on Exhibit B-1 to the Supply Agreement.

“Site Plan” means the relevant Site layout and placement of crane pads as illustrated on a document in the form of Exhibit B-2 to the Supply Agreement.

“Spare Parts” means the parts identified in the Spare Parts List.

“Spare Parts List” shall have the meaning ascribed to this term in Section 3.2.2(k) of the Supply Agreement.

“Special Tools” means the tools identified in the Turbine Installation and Erection Manual which are supplied by seller for the unloading, installation or erection of the WTGs.

“Specifications” or “WTG Specifications” mean the technical design and manufacturing specifications for the Wind Turbines, as set forth in Exhibits A-1 Technical Specification for MWT95/2.4 with 80m Hub Height, A-2 the CWP Option, A-3 the Power Curve and Thrust Curve, A-4 the Power Curve Correction Table for Air Density, and A-5 the Columnar Control Strategy, to each of the Supply Agreement and the Warranty Agreement.

**"Substation"** means the portion of the Project Interconnection Facilities (including, without limitation, the main transformer, breakers, structures, control building, metering, and other power conditioning components), where the voltage is transformed to meet the voltage requirements to connect to the Grid.

**"Substantial Completion"** has the meaning ascribed to such term in Section 9.3(e) of the Supply Agreement.

**"Substantial Completion Certificate"** means the Substantial Completion Certificate to be issued pursuant to Section 9.3 of the Supply Agreement.

**"Substantial Completion Date"** means the date of the Substantial Completion Certificate.

**"Substantial Completion Payment"** has the meaning ascribed to such term in Section 4.2.6 of the Supply Agreement.

**"Supply Agreement"** means the Wind Turbine Generators Supply Agreement dated as of the Effective Date, by and between Seller and Owner.

**"Support"** means personnel, labor, suppliers, vendors and subcontractors of any tier, materials, supplies, consumables, equipment, tools, construction equipment, transportation, data, drawings, plans, specifications and other goods, items, facilities and services (including technical and professional services).

**"Taxes"** means any and all forms of taxation, charges, duties, imposts, levies and rates whenever imposed by the United States or Colorado or other governmental entity, including without limitation, income tax, withholding taxes, corporation tax, capital gains tax, capital transfer tax, inheritance tax, rates, water rates, customs duties, capital duty, excise duties, betterment levy, community charges, development land tax, stamp duty, stamp duty reserve tax, national insurance, social security or other similar contributions, and generally any tax, duty, impost, levy or rate or other amount and any interest, penalty or fine in connection therewith.

**"Technical Advisor"** means the employee and/or representative of Seller who provide the Technical Assistance.

**"Technical Advisory Fee"** has the meaning ascribed to such term in Section 8.2(c) of the Supply Agreement.

**"Technical Assistance"** has the meaning ascribed to such term in Section 8.2(a) and 8.2(b) of the Supply Agreement.

**"Test Engineer"** shall have the meaning assigned in Section 3.3.1 of the Warranty Agreement.

**"Time Availability"** means, for purposes of Sections 6.1 and 6.2 of the Warranty Agreement, the sum of (i) the aggregate time a Wind Turbine was in **"RUN"** or in **"STANDBY"** mode as indicated at the WTG control panel and was capable of operating in accordance with its

Specifications, and (ii) Non-Manufacturer Downtime, such sum divided by all calendar hours within the measured period, and expressed as a percentage.

**Tower** means each 80m steel tubular tower with a hub on which a Wind Turbine's Turbine Nacelle shall be mounted, including all ladders, platforms, internal lighting, safety equipment and all parts and assemblies necessary for a complete turbine tower, all as further described in Exhibit A to the Supply Agreement.

**Tower Assembly Drawing** has the meaning ascribed to such term in Section 3.2.2(c) of the Supply Agreement.

**Tower Base Flange Drawing** has the meaning ascribed to such term in Section 3.2.2(b) of the Supply Agreement.

**Tower Load Data** has the meaning ascribed to such term in Section 3.2.2(a) of the Supply Agreement.

**Transportation F/S** has the meaning ascribed to such term in Section 5.3 of the Supply Agreement.

**Turbine Installation and Erection Manual** has the meaning ascribed to such term in Section 3.2.2(f) of the Supply Agreement and is part of the Instruction Manual to be prepared and delivered by Seller to Owner pursuant to Section 3.2.2(h) of the Supply Agreement.

**Turbine Nacelle** means the turbine nacelle component of a Wind Turbine, including gearbox, generator and nacelle yaw controls, and associated control and ancillary equipment.

**Turbine Service and Maintenance Manual** is part of the Instruction Manual to be prepared and delivered by Seller to Owner pursuant to Section 3.2.2(h) of the Supply Agreement.

**Unit Price** has the meaning ascribed to such term in Section 4.1 of the Supply Agreement.

**Utility** means any purchaser of power or renewable energy credits from the Project(s), and any successor or assign.

**Unit Price** means the price per WTG, whether included in the first NTP or the second NTP, indicated in the table inserted in Section 4.1 of the Supply Agreement.

**Unscheduled Maintenance** shall have the meaning ascribed to that term in Section 1.1 of the Service Agreement.

**US Port of Entry** means the initial location where the WTG component is ready for inland transportation in US and shall be defined as DDP Corpus Cristi, Houston or other ports in California or Midwest as mutually agreed by Owner and Seller to reflect the lowest all in delivered cost based on the Site, for the WTG components from Japan, Ex. Works, US factory or US border for the Towers, and Ex. Works, Santa Teresa, NM for the Blades.

**"Variation"** has the meaning ascribed to such term in Section 8.6 of the Supply Agreement.

**"Warranty"** has the meaning ascribed to such term in Section 5.1 of the Warranty Agreement.

**"Warranty Agreement"** means the Warranty, Performance Test and Guaranty Agreement, dated as of the Effective Date, by and between Owner and Seller, as the same may be amended from time to time.

**"Warranty Period"** means the Initial Warranty Period and the Extended Warranty Period.

**"Warranty Repair"** has the meaning ascribed to such term in Section 5.4.1 of the Warranty Agreement.

**"Warranty Retrofit"** has the meaning ascribed to such term in Section 5.4.2(a)(iv) of the Warranty Agreement.

**"Wind Turbine"** and **"WTG"** and **"Unit"** means the MHI wind turbine generator consisting of Nacelle, Rotor Head, Control Panel and Blade with a nameplate capacity rating of 2,400 kW to be supplied to Owner for the Project, together with tower having a 80m hub height, all as more particularly described in the Specifications. Their plural means all of WTG supplied for the Project.

**"Wind Turbine Anemometer"** or **"WTG Anemometer"** means, with respect to each Wind Turbine, the anemometer located on such Wind Turbine's Turbine Nacelle.

**"Wind Turbine Work"** has the meaning ascribed to such term in Section 3.2.1 of the Supply Agreement.

**Exhibit A**

**Technical Specifications for Wind Turbines**

**Exhibit A-1**

**Technical Specifications for MWT95/2.4 with 80m Hub High**

**MWT95/2.4 (60Hz, 80m hub height)  
WIND TURBINE GENERATOR**

**(WTI-A-095-R4)**

**R4 7th. December, 2007**



**MITSUBISHI HEAVY INDUSTRIES, LTD.  
NAGASAKI SHIPYARD & MACHINERY WORKS**

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## **1. INTRODUCTION**

### **1.1 General Information of MWT95/2.4**

In this document, the standard technical specification of MWT95/2.4 wind turbine generator will be described in a detailed manner. This intends to provide technical information regarding to the latest equipment and component installed in the wind turbine. Also included in this document is the latest outline and arrangement of the MWT95/2.4 Wind Turbine Generator.

Basically, MWT95/2.4 Wind Turbine Generator is the latest generation of wind turbine designed by Mitsubishi Heavy Industries (MHI) to meet the growing demand of the market in a high capacity but reliable and efficient wind turbine.

The design features of MWT95/2.4 wind turbine are as follows.

- a.) 95 m rotor diameter for high power capacity.
- b.) Variable speed operation.
- c.) Upwind, three blades with Individual Blade pitch control.
- d.) Active Yaw System to track wind direction and Down Wind Soft Support for extreme wind condition.
- e.) 3 stage, planetary/parallel/parallel in-house designed gearbox.
- f.) Improved blade design for lightning protection and wind load reduction.

## 1.2 Outline of MWT95/2.4

MWT95/2.4 wind turbine generator is mainly composed of the following primary components and systems.

1. Rotor (Blades, Rotor Head, Pitch Control Equipment)
2. Power Train (Shaft, Gearbox, Generator)
3. Yaw System
4. Tower
5. Controller and Terminal for Communication

### 1.2.1. Rotor

The rotor is composed of three blades, the rotor head and the pitch control mechanism. The blade is attached in a blade bearing for longitudinal axis rotation. The blades can change pitch individually using the pitch control mechanism inside the rotor head. This is controlled using individual pitch control corresponding to the stress signal measured at the blade root. The rotor transmits the power to the power train through the mainshaft.

The blade bearing is lubricated with grease. Automatic Grease Distributor is prepared for easy maintenance to supply grease automatically during its operation.

#### 1.2.1.1 Blades

Blades are made from Glass Fiber Reinforced Plastic (GRFP). Each blade is approximately 46.2 m in length, and utilizes the modified NACA 63-XXX series airfoil. This type of blade has maximum lift for power generation but with low drag characteristics, which minimizes the propagated noise during operation.

The blade structure consists of two skins, the Low Pressure Skin and the High Pressure Skin and two shear webs, the Leading Edge Side Shear Web and the Trailing Side Shear Web. These parts are made from Glass Fiber Reinforced Plastic (GRFP) and core material and bonded together using resins and adhesive. MHI blades utilize stitch fabric material for its strength and lightweight properties.

For lightning strike protection, multiple metal receptors are installed along the body of each blade. These receptors are connected to a down conductor wire. This will conduct the surge of lightning current from the blade to the rotor head.

Blades are installed on the rotor head using T-bolts connections.

#### 1.2.1.2 Rotor head (Hub)

The rotor head is the component on which the three blades are connected. The rotor head is made from cast iron. The pitch control mechanisms and hydraulic cylinders of the blades are attached in the rotor head. The static, dynamic and centrifugal force in the rotor head is transmitted to the nacelle bed-plate via the main shaft bearing.

#### 1.2.1.3 Pitch Control Mechanism

Pitch control is used to control the power generated and to prevent the wind turbine from over-speeding. The pitch control mechanism controls the blade pitch individually with individual components such as hydraulic cylinders, control valves, accumulator, and pitch angle sensors.

In case of a hydraulic pump problem or leakage, there is an individual accumulator for each blade pitch control mechanism. During emergency situations, the accumulated pressure is sufficient enough to change the individual blade pitch into feathering position and stop or decrease the rotor rotation speed.

Also changing the blade pitch individually is a more effective way of aerodynamic brake. This is because in case that a single blade will not fully change into feather position, the remaining blades will be sufficient enough to decrease the rotor rotation.

#### 1.2.2 Power Train

The power train is inclined at approximately 5° from the horizontal axis. The rotor is connected to the main shaft and rotates at 9-16.9 rpm and drives a speed increasing gearbox for wind turbine generator. The main shaft and gearbox are securely connected by a shrink disk.

The gearbox is connected to the generator by a flexible type shaft coupling. The high speed shaft has a steel mounted disk brake. This brake can be engaged during routine maintenance and emergency conditions.

#### 1.2.2.1 Gearbox

The gearbox transmits torque and increases the rotational speed coming from the main shaft to the generator. The gearbox uses a 3 stage (planetary/parallel/parallel) gear arrangement. By using two oil pumps, the gearbox is lubricated and cooled by forcing the oil to flow through gears and bearings. To reduce mechanical noise propagation, the gearbox is mounted on the nacelle using vibration isolation bushings and torque arms.

#### 1.2.2.2 Generator

The generator is doubly-fed asynchronous generator. It has self-lubricated bearing and uses an air cooling system. It has 6 poles and rating of  $60\pm 5\%$  Hz,  $690\pm 10\%$  volts. Generator conforms to IEC, JEC, and EMC standards and has a degree of protection of IP54.

#### 1.2.2.3 Transformer

A step up transformer is mounted on the nacelle to step up the generated 690 V power to 34.5 kV. Installing the transformer on the nacelle enables a reduction in the installation cost of installing it outside the nacelle.

It has nominal capacity of 2700 kVA. The low voltage side is connected in star connection while the high voltage side is connected on delta connection.

#### 1.2.2.4 Braking System

There are two types of brakes for rotor. The first one is the aerodynamic brake which changes the pitch position of the blades. The second one is the service brakes which use a brake disk mounted on the high speed shaft and brake calipers.

Activation of each brake depends on the many different conditions. Generally, the pitch brake shall be used to decrease rotor speed during normal and emergency shutdown. Whilst, the service brake shall be used as a parking brake and activated during emergency and maintenance.

#### 1.2.3 Yaw System

The yaw system is composed of a yaw bearing, gears, and brake calipers. Yawing is automatically controlled to face the dominant wind direction.

The yaw bearing is lubricated with grease. Automatic Grease Distributor \*) shall be applied as an option.

\*) Option

#### 1.2.4 Tower

The tower is the tapered mono-pole steel structure supporting the wind turbine generator. For a wind turbine hub height of 80m, the tower is divided into four sections. The base section has a diameter of approximately 4.8m and the top section has a diameter of 3 m. The sections of the tower are connected using bolts.

Tower accessories include the ladder with Climb Assist Device, base for control panel, lights, safety ropes, etc.

#### 1.2.5 Safety and Control System Concept

The Safety and Control System controls the blade pitch, generator power and yawing of the wind turbine during normal operating condition. The Safety and Control System protects the wind turbine using blade pitch, yaw, service brake, and generator contactors.

##### 1.2.5.1 Safety System

The safety system consists of hardwired circuits, which is completely independent from software circuits. Along with protection device alarms, the hardwired circuits of the safety system can protect the wind turbine regardless of errors or incorrect actions of the controller.

The safety system will activate the safety action even when grid loss or loss of power supply in equipments. The accumulator is used to put the blades in feather position.

##### 1.2.5.2 Control System

During the normal condition, the wind turbine is controlled using the blade pitch control, power control and the yaw control. The concept of control system, mainly in the power control of the wind turbine is shown in Figure 2.1.

###### a. Blade Pitch Control

A hydraulic cylinder is connected to each blade. MWT95/2.4 has blade pitch control that can change the blade pitch individually. Individual pitch control can reduce the fluctuating loads acting on the turbine as well as effective aerodynamic brake.

b. Power Control

Generator power is controlled appropriately based on the measured generator speed.

c. Yaw Control

During normal operation, the rotor is directed upwind and is redirected with changing direction for maximum power generation. The Yaw controls this changing of direction of the nacelle. During strong wind conditions, such as typhoon, the yaw control directs the rotor in downwind position for wind load reduction. This is smart yaw. If the wind speed goes back to normal condition, the rotor is directed again in the upwind position.

d. Service Brake

MWT95/2.4 has mechanical hydraulic disk brake installed in high speed shaft of gearbox. This service brake is used as a parking brake during maintenance. Also, when emergency button is pushed, service brake is activated after rotor speed is decreased down by pitch brake.

#### 1.2.5.3 Arrangement of Control Device

Safety and Control System panel is classified according to their location and responsibility.

1. Hub Cabinet: Installed inside the rotor head. It sends the measured pitch angle to Top Control Cabinet, and output the received pitch demand to the actuators.
2. Top Control Cabinet: Installed inside the nacelle. It controls and supervises the pitch control and power generation control of wind turbine. Also, it controls the other auxiliaries in the nacelle such as Yaw motor and service brake.
3. Converter Panel : Installed inside the nacelle and manages the power generation and conversion.
4. Ground Cabinet: Installed at the bottom of the tower and serves as the communication port for operation and data transmission.

## **2. GENERAL CONDITIONS**

### **2.1 Design**

The main parts of the wind turbine are designed with consideration of a theoretical 20 years lifetime under IEC (International Electro-technical Commission) Class II A condition, except for seals and consumables.

- GFRP Blade
- Blade Bearing
- Rotor Head Structure
- Nacelle Bedplate
- Main Shaft
- Main bearing
- Gearbox
- Generator
- Yaw Gear
- Yaw Bearing
- Tower Structure

### **2.2 Service Interval**

- Checking and Grease charge interval is every half year.
- Regular maintenance interval is one year.

### **2.3 Technical Standards**

MWT95/2.4 wind turbine generator and its electrical equipment are manufactured in accordance with IEC and the following Japanese standards, which are applicable as of April 2006.

- JIS (Japanese Industrial Standard)
- JEM (The Standard of Japan Electrical Manufacturer Association)
- JEC (Japanese Electro-technical Committee)

### **2.4 Requirement for connection point to WTG**

WTG terminal voltage and frequency is  $\pm 10\%$  and  $\pm 5\%$  respectively. Exceeding the stated tolerance may result in abnormal operation of the wind turbine and cause damage to electrical components. Also, consideration to grid failure should be noted. The maximum power outages should not exceed once a week.

## 2.5 Painting and Corrosion Protection

The standard color of the MWT95/2.4 is light gray (Munsell Code N-8.5 equivalent). The paint grade that is used in the inside/outside surface of the nacelle and tower is according to ISO 12944. Applicable Corrosivity Categories are as follows.

### a) For inland installation (Standard specification)

Outside surface of Tower and surface of the steel structure installed outside of Nacelle Cover and Rotor Head Cover	C4 grade H
Inside surface of Tower and surface of the steel structure installed inside of Nacelle Cover and Rotor Head Cover	C3 grade H

### b) For near-shore installation (Optional specification)

Outside surface of Tower and surface of the steel structure installed outside of Nacelle Cover and Rotor Head Cover	C5-M grade H
Inside surface of Tower and surface of the steel structure installed inside of Nacelle Cover and Rotor Head Cover	C4 grade H

The corrosion protection of the blade is a Gel-coat.

## 2.6 Grounding System Requirements

The recommended transition resistance of the wind turbine to earth is below 2 ohm.

## 2.7 Environment Condition.

Temperature	IEC 61400-1 Standard Condition Operation: -10°C ~ +40°C Storage : -20°C ~ +50°C
Elevation	below 1000 meters above sea level
Seismic condition	The area defined as the mapped spectral acceleration for a 1-second period, $S_1 < 0.6g$ , as set forth in International Building Code 2006.
Air Density	1.225 kg/m <sup>3</sup>
Other Environmental Condition	as specified in IEC 61400-1 Section 6.4.1

## 2.8 Quality Control

MWT95/2.4 is manufactured at the facility in accordance with ISO-9001 (2000 edition)

## 2.9 Reservation of WTG Operation

The Owner/Developer is requested to provide MHI with the control strategy to help

prevent and determine that the wind turbine(s) will not be exceeding their designed load Specification. MHI will immediately confirm the control strategy as soon as the Owner/Developer provides the necessary site information for the Project(s). This includes basic site data, wind conditions, seismic loading, terrain characteristics, turbine lay-out, network conditions, including power station specifications and the project schedule.

MHI shall have no responsibility or project liability regarding the information given to MHI whether the information given is inaccurate and not precise or for any reason whatsoever.

Any and all advice given by MHI as to columnar control strategy shall be solely given to Owner/Developer for informational purposes and may be used by Owner/Developer or not, as decided by Owner/Developer, but shall be solely used by MHI to provide verification that the warranty on the WTGs shall be able to be applied and be available for the Owner/Developer(s) Project(s).

### **3. SCOPE**

Normally, MWT95/2.4 has the primary parts and equipment already assembled at the MHI plant and can be delivered on the scheduled time; which the owner and MHI will mutually agreed to. But there is some equipment and parts of the wind turbine that the customer will need to provide in each project. These items are in the scope of responsibility of the owner.

Shown below is the table in which the MWT95/2.4 parts and equipment are itemized. This table will include which party which will be responsible for the supply of particular equipment and which will install the equipment, etc. Also, attachment 3 shows the figure of the scope of responsibility between the customer and MHI.

Note that this arrangement is subjected to change based on the agreement between the customer and MHI. Also, the quantity of the wind turbines will depend on the customer requirements and decisions.

MWT95/2.4 Parts and Equipments		Party In-Charge		Remarks
		Design & Supply	Installation	
1	Front Nacelle ·Gearbox ·LO Unit ·Other Front Nacelle Accessories	MHI	Customer	All equipments will be installed at the assembly shop
2	Rear Nacelle ·Generator ·Transformer ·Control Cabinet ·Lightning Rod ·Ultrasonic Anemometer ·Cooling Equipments ·Other Nacelle Accessories	MHI	Customer	Except for the lightning rod and ultrasonic anemometer, all equipments will be installed at the assembly shop.
3	Yaw Module ·Yaw Motor ·GO Unit ·Other Yaw Module Accessories	MHI	Customer	All equipments will be installed at the assembly shop
4	Rotor ·Blades ·Rotor Head ·Pitch Control Mechanism ·Other Rotor Accessories	MHI	Customer	The blades will be separately transported and installed on the construction site prior to erection

MWT95/2.4 Parts and Equipments		Party In-Charge		Remarks
		Design & Supply	Installation	
5	Tower Tower Climbing Ladder Tower Connecting Bolts Other Tower Accessories	MHI	Customer	The tower will be transported to the construction site by sections. Anchor Bolt and Template shall be provided by customer. Padlock shall be provided by customer.
6	Aviation Obstacle Light	Customer	Customer	
7	Switch Gear	Customer	Customer	Refer to "Note 1"
8	Ground Cabinet	MHI	Customer	
9	Tower Grounding	Customer	Customer	
10	Tower Foundation	Customer	Customer	Tower foundation will be constructed by customer prior to WTG erection
11	Other WTG Accessories (Lifting Beams, Special Tools and Equipments, etc)	MHI	Customer	The quantity of tools shall be discussed between customer and MHI, and the price shall be separately quoted
12	Communication Cable	Customer	Customer	
13	Power Cable from Transformer to Switchgear	MHI	Customer	Refer to "Note 2"
14	Power Cable Plug Connectors for Switchgear	Customer	Customer	
15	Power Cable from Switchgear to Substation	Customer	Customer	
16	Race Way for Underground Power Cable	Customer	Customer	
17	Substation	Customer	Customer	
18	Substation Ground System	Customer	Customer	
19	Utility Grid	Customer	Customer	The grid specification will depend on the customer

MWT95/2.4 Parts and Equipments		Party In-Charge		Remarks
		Design & Supply	Installation	
20	Handy Operation Terminal (HOT)	MHI	N/A	One (1) HOT per ten (10) WTGs but not greater than ten (10) HOT per Project
21	Diesel Generator for Maintenance works	Customer	N/A	

**Note 1 :**

If Customer needs to have a valid "GL A-Design Certificate of MWT95/2.4 having switch gears installed inside the Tower", Customer shall select the Switch Gear from the list of applicable Switch Gears which will be specified by MHI.

As an alternative, Customer can install the Switch Gear outside of the Tower. Since MHI can obtain the GL A Design Certificate of MWT95/2.4 WITHOUT having Switch Gear inside of the Tower (i.e, Switch Gear to be located outside the Tower and such Switch Gear is not under the coverage of GL Certificate), Customer, as part of its scope of supply, can purchase Switch Gear by its own choice and responsibility, as far as switch gear is arranged and used outside of the Tower. In this case, the constructions required for Switch Gear such as foundation shall be designed, supplied and installed by Customer.

**Note 2 :**

In case that switchgear is arranged and used outside the Tower, the length of the Power Cable shall be adjusted in accordance with Switch Gear Layout and price adjustment will be required accordingly.

#### **4. SPECIFICATION OUTLINE**

Primary Standard Specification of "MWT95/2.4" is as follows.

##### **4.1 General Specification**

Rated output	2,400 kW
Hub Height	80 m
Power Regulation	Individual Pitch Control
Yaw Orientation	Active Yaw Control
Designed Wind Class	IEC Class IIA
	Rated wind speed 12.5 m/s
Cut-in wind speed	3.0 m/s at 10 minutes
Cut-out wind speed	25.0 m/s at 10 minutes (30.0m/s during 2sec)
Reset from Cut-out	20.0 m/s at 10 minutes
Power curve*	Refer to Attachment-2

\* Air Density 1.225 kg/m<sup>3</sup> at 10 minutes average

##### **4.2 Technical Specifications**

###### **4.2.1 Rotor**

Number of Blades	3
Diameter	95.0 m
Swept area	7,088.2 m <sup>2</sup>
Rotation Speed	9~16.9 rpm
Tip Speed	75 m/s at 15 rpm
Rotational Direction	Clockwise against wind direction
Orientation	Upwind
Cone Angle	-2 degrees
Tilt Angle	approx. +5 degrees to horizontal axis

#### 4.2.1.1 Blades

Length	46.2 m
Material	GFRP (Glass Fiber Reinforced Plastic)
Airfoil (profile)	NACA 63-XXXX
Twist from root to tip	approximately 20.8 degrees
Chord Length Root	approximately 1136 mm
Tip	approximately 3513 mm

Each blade is fitted with multiple metal receptors and a down-conductor for lightning protection.

#### 4.2.1.2 Rotor Head (Hub)

Type	Cast Iron
Material	JIS FCD400L-18L
Corrosion	Anti-Corrosion Painted

#### 4.2.2 Tower

Type	Tapered Mono-pole
Materials	Steel
Hub Height	80 m*
Ground Clearance	approximately 32.5 m (Hub Height 80 m)
Top Diameter	approximately 3.0 m
Base Diameter (max. dia.)	approximately 4.8 m
Tower utilities	A Ladder with a Climb Assist Device, Stage Floors, Safety Wire, Lights, Door, and Base Floor for control panel
Number of sections	4 sections
Foundation/Anchor System	Anchor bolt type

\*This includes the distance from the top tower section flange to hub center.

**4.2.3 Nacelle****4.2.3.1 Nacelle Cover**

<b>Material</b>	<b>GFRP</b>
-----------------	-------------

**4.2.3.2 Nacelle frame**

<b>Type</b>	<b>Cast Iron</b>
<b>Material</b>	<b>JIS FCD400-18L</b>
<b>Corrosion</b>	<b>Anti-Corrosion Painted</b>

**4.2.3.3 Main shaft**

<b>Type</b>	<b>Forged Steel</b>
<b>Material</b>	<b>JIS S45C</b>

**4.2.3.4 Main bearing**

<b>Type</b>	<b>Double Taper Roller Type</b>
<b>No. of bearing</b>	<b>1 set</b>
<b>Oil Lubrication</b>	<b>Forced lubrication</b>

**4.2.3.5 Gearbox**

<b>Type</b>	<b>3 Stages, Planetary/Helical/Helical</b>
<b>Gear Ratio</b>	<b>approximately 1:90.6 for 60Hz</b>
<b>Nominal Rotational Speed</b>	
<b>High Speed Shaft to generator</b>	<b>about 1,359 rpm</b>
<b>Low Speed Shaft to Rotor</b>	<b>15 rpm</b>
<b>Oil Lubrication</b>	<b>Oil bath, Splash, and Forced lubrication</b>

**4.2.3.6 Mechanical service brake**

<b>Type</b>	<b>Disk brake, mounted on high speed shaft</b>
<b>Material</b>	<b>Steel</b>
<b>Number of caliper</b>	<b>1 piece</b>

**4.2.3.7 Coupling**

Type	Flexible type shaft coupling
------	------------------------------

**4.2.3.8 Generator**

Type	Doubly-fed Asynchronous Generator with Wound Rotor
Nominal Capacity	2520 kW
Number of Poles	6 poles
Synchronous Speed	1200 rpm
Rated Voltage	690 V $\pm$ 10%
Frequency	60 Hz $\pm$ 5%
Degree of Protection	IP54
Rating	Continuous
Standards	IEC, JEC, and EMC standards

**4.2.3.9 Converter**

Type	PWM with IGBT Power Converter
Nominal Capacity	800 kVA
Rated Voltage	690 V
Frequency	60 Hz
Power Factor Range	0.9 (inductive) ~ 0.95 (capacitive) *

\* ) Automatic power factor regulation is adopted. Target power factor at WTG terminal can be selected from our controller located on the bottom of each tower and / or other external facility such as SCADA. To keep the target power factor, the reactive power produced from WTG is controlled dynamically when active power of WTG or WTG terminal voltage is changed.

**4.2.3.10 Transformer**

Nominal Capacity	2,700 kVA
Rated Voltage	690V/34.5kV
Connection	Y/ $\Delta$

#### 4.2.3.11 Hydraulic unit

Function	Governing oil unit To supply hydraulic oil (Control hydraulics for blade pitch, main shaft brake and yaw brake) with oil cooling
Working pressure	25.0 MPa
Oil type	ISO VG32
Pump capacity	43.5 L/min @25.0 MPa, 22kW

#### 4.2.2.12 Yaw System

Control type	Active feedback
Yaw Drive	Geared Induction Motor
Power Rating	3.8 kW x 4sets
Orientation speed of nacelle	about 0.4° per second
Support	4 points bearing

#### 4.2.13 Mechanical yaw brake

Type	Disk brake mounted on yaw bearing
Material	Steel
Number of caliper	9 pieces

#### 4.3 Nacelle Utilities

Emergency stop button, Service socket, Service valve for hydraulics, Lights, Lifting Winch, Access Hatch, Maintenance foothold area inside the nacelle.

#### 4.4 Wind Turbine Control System

Power Regulation	Individual Pitch Control
Yaw Orientation	Active YAW control
Methodology	Two Ultrasonic Anemometers and Wind Vanes
Communication method	Ethernet
Control method	Manual at the site

Remote start and/or stop by the  
SCADA System\*

\*The owner shall decide the SCADA System that will be used.

#### 4.5 Lightning Protection (IEC Level 1)

Blade	There are multiple metal receptors on the blade and a down-conductor wire inside of the blade.
Nacelle	The surge of current will be led away from the frame of nacelle to the tower.
Tower	The tower itself will become the conductor from the nacelle to the ground.

#### 5. Options

The following will be options.

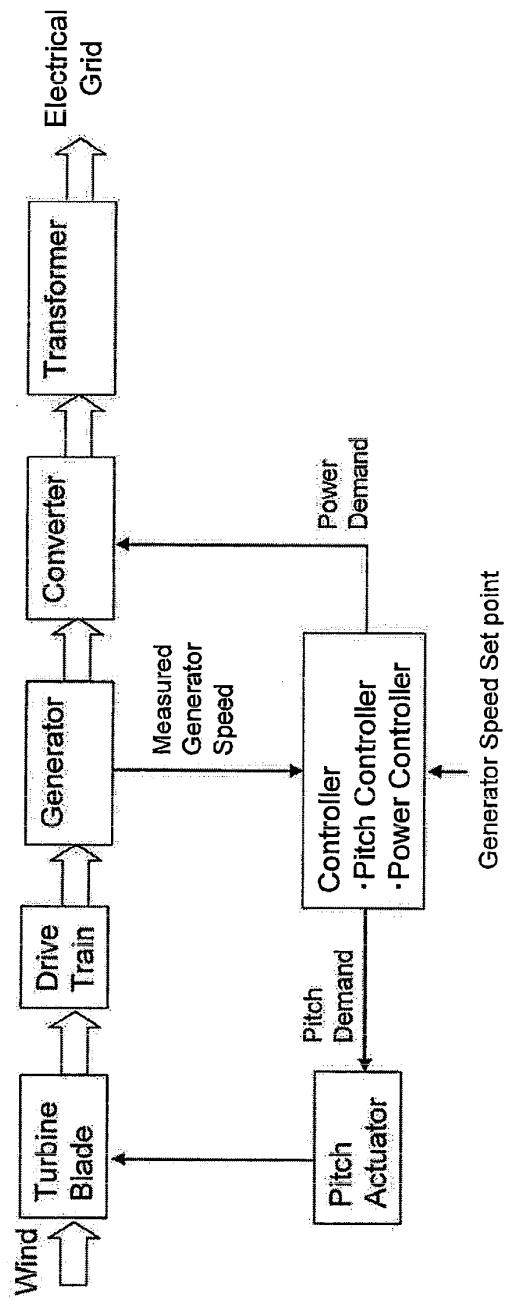
- Fire Extinguisher
- Special Rotor Turning Unit for Single Blade Installation <sup>(※1)</sup>
- Automatic Grease distributor for Yaw Bearing <sup>(※2)</sup>
- Special service winch <sup>(※3)</sup>
- Cold Weather Package

※1) Standard Rotor Turning Unit for maintenance will be equipped as standard.

※2) Automatic Grease distributor for Blade Bearing will be equipped as standard.

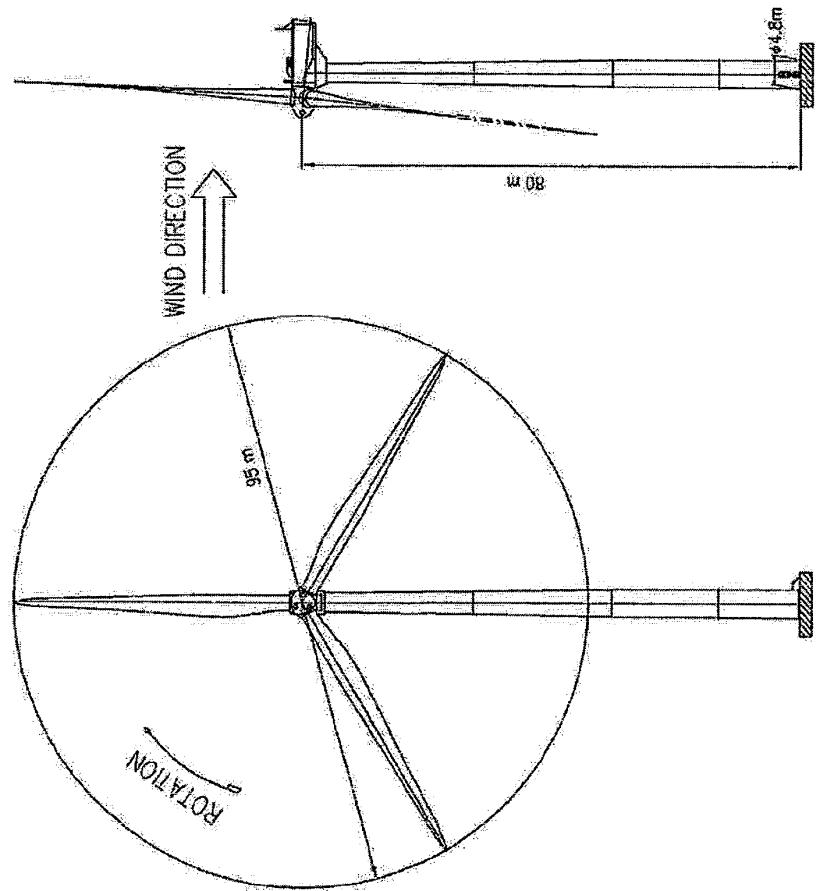
※3) Standard service winch for maintenance (capacity : 500kg) will be equipped as standard.

Figure2-1: Power & Pitch Control System



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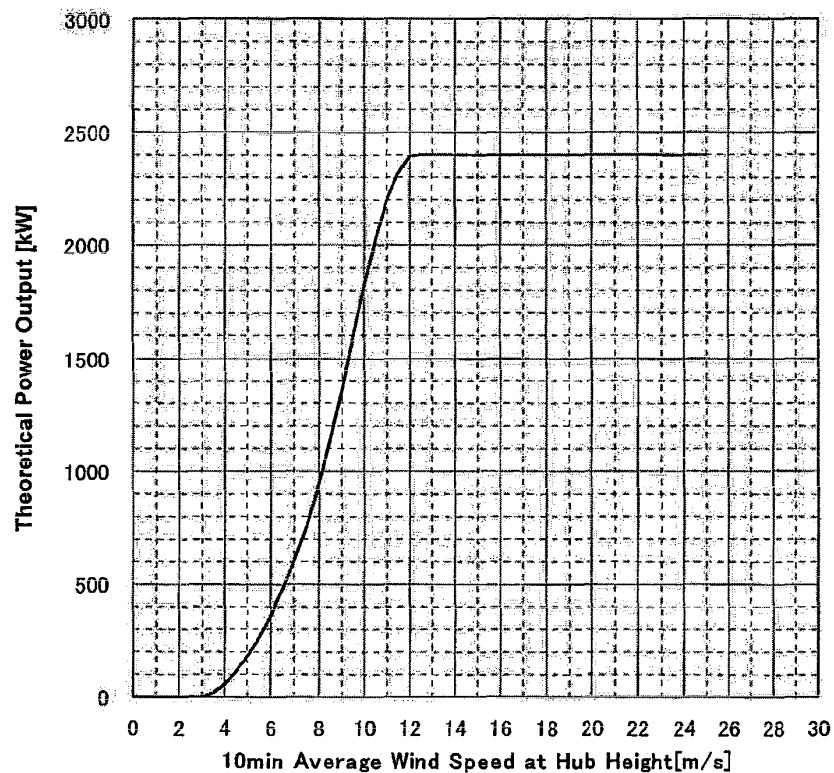
Attachment 1: Outline of MWT95/2.4 & 80m tower



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**Attachment-2 Theoretical Power Curve of MWT95/2.4:**

The Theoretical Power Curve of MWT95/2.4 is shown below. Also corresponding values are arranged and shown in the table form in the following page. Condition is the air density 1.225kg/m<sup>3</sup> (15°C of air temperature, 1013hPa of air pressure), clean rotor blades, horizontal and standard air flow.

**Remarks:**

The following assumptions and conditions are solely for the purpose of expressing the relationship between wind speed and kilowatt productions and do not constitute representations or warranties of actual conditions.

- The above data are valid at the 10 minutes average speed data measurement at the hub height only.
- The output is measured at the low voltage side of the transformer inside the nacelle.
- For the purpose of computing power output with respect to the power curve, the turbulence intensity is assumed to be 10%.
- This power curve assumes flat ground and the absence of any external factor that could affect the force or direction of wind transition of electrical energy. (for example, array loss, topography, grid loss, etc.)
- This power curve and the turbine specifications assume that the site wind condition is on or below IEC Class IIA Standards.

**Theoretical Power Curve for MWT95/2.4**

Condition is the air density 1.225kg/m<sup>3</sup> (15°C. of air temperature, 1013hPa of air pressure), clean rotor blades, horizontal and standard air flow.

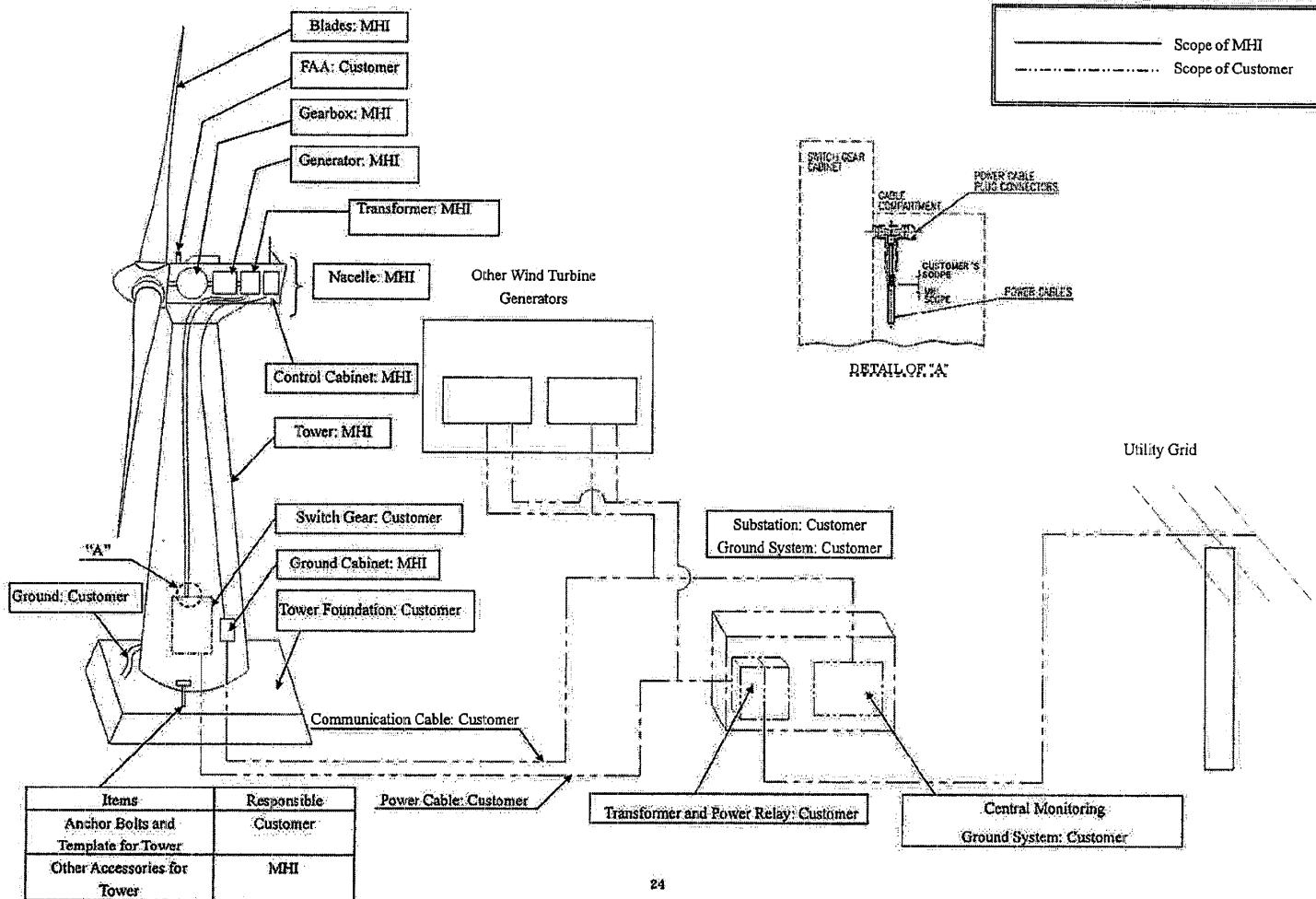
Wind Speed @ Hub Height (m/s)	Output Power (kW)	Wind Speed @ Hub Height (m/s)	Output Power (kW)
	Air Density $\gamma=1.225$		Air Density $\gamma=1.225$
3.0	0	14.5	2400
3.5	17	15.0	2400
4.0	58	15.5	2400
4.5	114	16.0	2400
5.0	182	16.5	2400
5.5	263	17.0	2400
6.0	361	17.5	2400
6.5	475	18.0	2400
7.0	608	18.5	2400
7.5	762	19.0	2400
8.0	941	19.5	2400
8.5	1140	20.0	2400
9.0	1361	20.5	2400
9.5	1595	21.0	2400
10.0	1828	21.5	2400
10.5	2035	22.0	2400
11.0	2203	22.5	2400
11.5	2322	23.0	2400
12.0	2396	23.5	2400
12.5	2400	24.0	2400
13.0	2400	24.5	2400
13.5	2400	25.0	2400
14.0	2400	>25.0	0

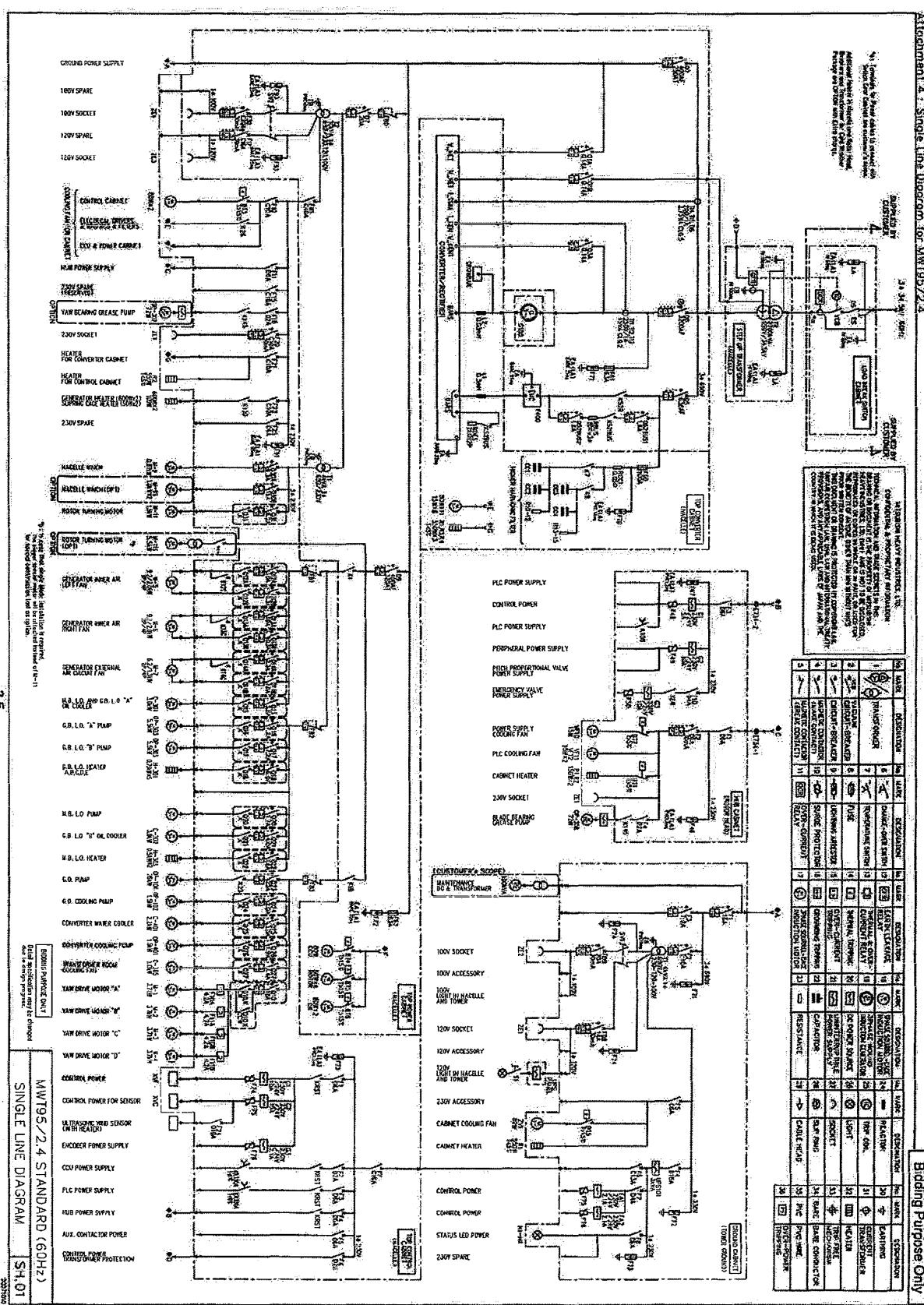
**Remarks:**

The following assumptions and conditions are solely for the purpose of expressing the relationship between wind speed and kilowatt productions and do not constitute representations or warranties of actual conditions.

- The above data are valid at the 10 minutes average speed data measurement at the hub height only.
- The output is measured at the low voltage side of the transformer inside the nacelle.
- For the purpose of computing power output with respect to the power curve, the turbulence intensity is assumed to be 10%.
- This power curve assumes flat ground and the absence of any external factor that could affect the force or direction of wind transition of electrical energy. (for example, array loss, topography, grid loss, etc.)
- This power curve and the turbine specifications assume that the site wind condition is on or below IEC Class II A Standards.

Attachment 3: Division of Responsibilities





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SUBJECT TO PROTECTIVE ORDER: CIV. ACT. NO. 3:10-CV-276-F**

MPSANDTX0000775

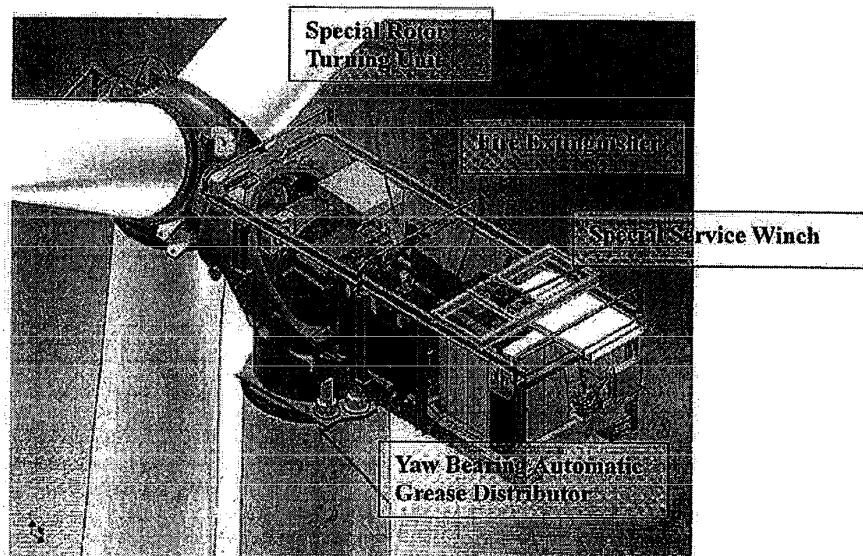
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**Attachment 5 : MWT92/95 Optional Components**

***General Arrangement of the Options***

Arrangement of options is shown below. The detail of the options is explained on the following pages.

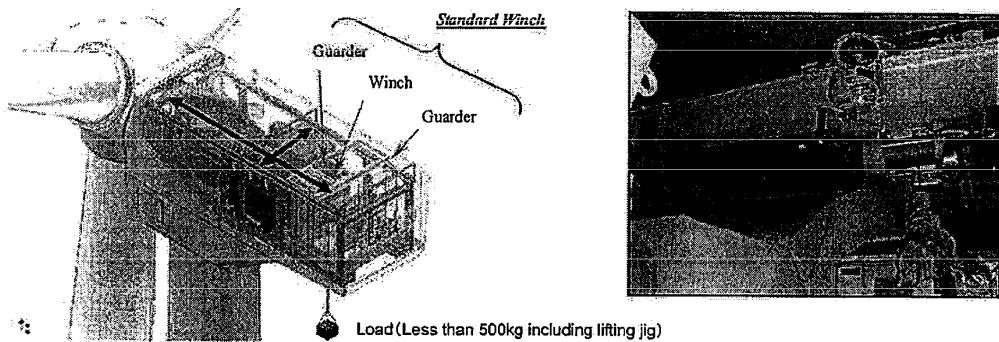


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### **Special Service Winch**

In normal condition, the standard winch is mounted at the guarder for the maintenance purpose and can be manually handled in the every direction.

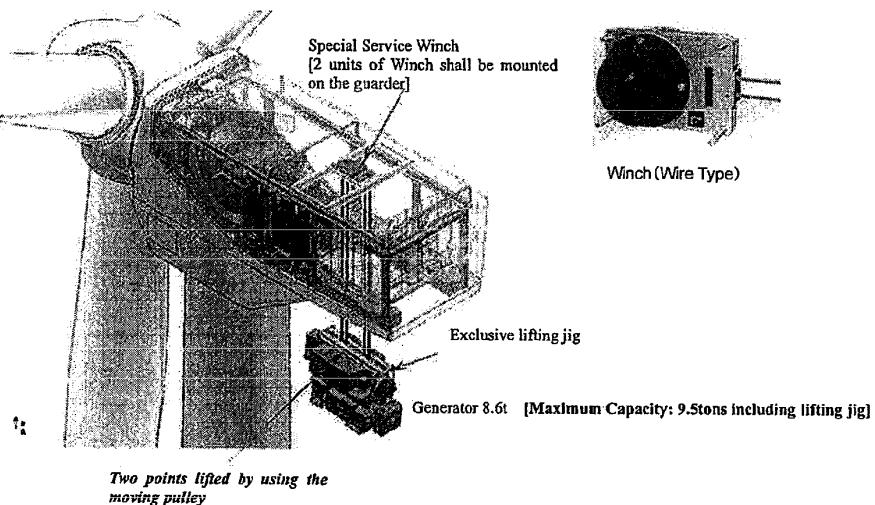
#### Normal Case



The intended purpose of the Special Service Winch is to load / unload large components(the generator and the transformer )without using the large crane in case of some trouble.

If the generator or the transformer is required to be unloaded / loaded from/into the nacelle without a large crane, it needs to replace the standard winch to the set of Special Service Winch. It is necessary to arrange the wire drum on the ground level additionally. This wire drum shall be provided by the customer.

#### Special Case

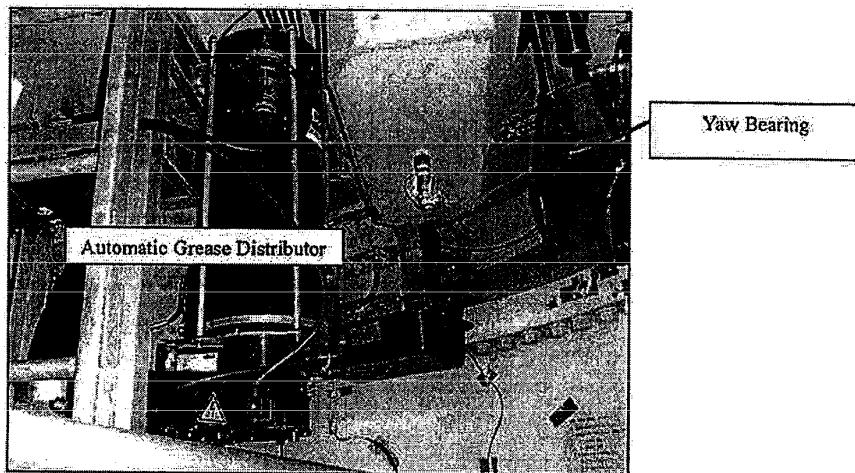


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### **Yaw bearing Automatic Grease Distributor**

In order to keep the lubricating condition of the Yaw bearing, the grease shall be supplied to the bearing periodically. Normally, without adoption of this optional automatic grease distributor, the grease shall be supplied to the Yaw bearing at the maintenance for every 6months. In this case, grease shall be supplied to the grease supply ports (12 ports/bearing x 1 bearing) manually by using the grease gun.

In case of application of this optional equipment, the grease will be supplied to the Yaw bearing automatically from the grease tank. The grease tank shall be filled up at the maintenance for every 1 year (annual inspection).



*Remark: Collection bottle for old grease has been equipped as standard for both bearing.*

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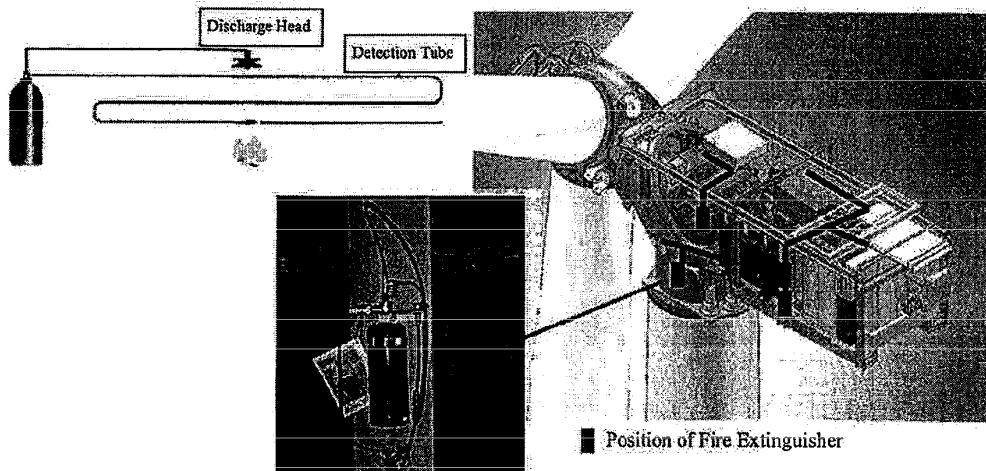
### **Fire Extinguisher**

The Fire Extinguisher monitors such components, which would have a heating or fire accident as transformer, main shaft brake and GO unit.

If the surface of detection tube's temperatures rises to over 70-80 degree C, then it will discharge the fire extinguisher.

It senses the fire by the pressure of the detection tube, and activates the valve.

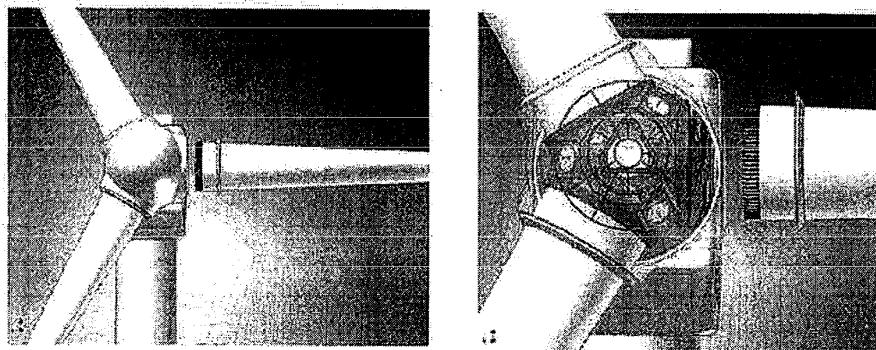
The extinguishing will discharge through the other system tube from the discharge head.



### **Special Rotor Turning Unit**

In case that the 2.4MW wind turbine needs to be erected in insufficient space for assembling of Rotor head with three blade on the ground,, a single blade might be required to be assembled one by one to the rotor head in the air (as shown in picture below). Then, the unbalanced rotor with a blade or two blades needs a larger capacity of special turning equipment to set up the blade one by one at the horizontal position.

This special turning equipment is designed to rotate the rotor for single blade installation.



*Remark: Standard turning unit for maintenance work, which can rotate the rotor with three blade, has been equipped as standard.*

**Exhibit A-2**

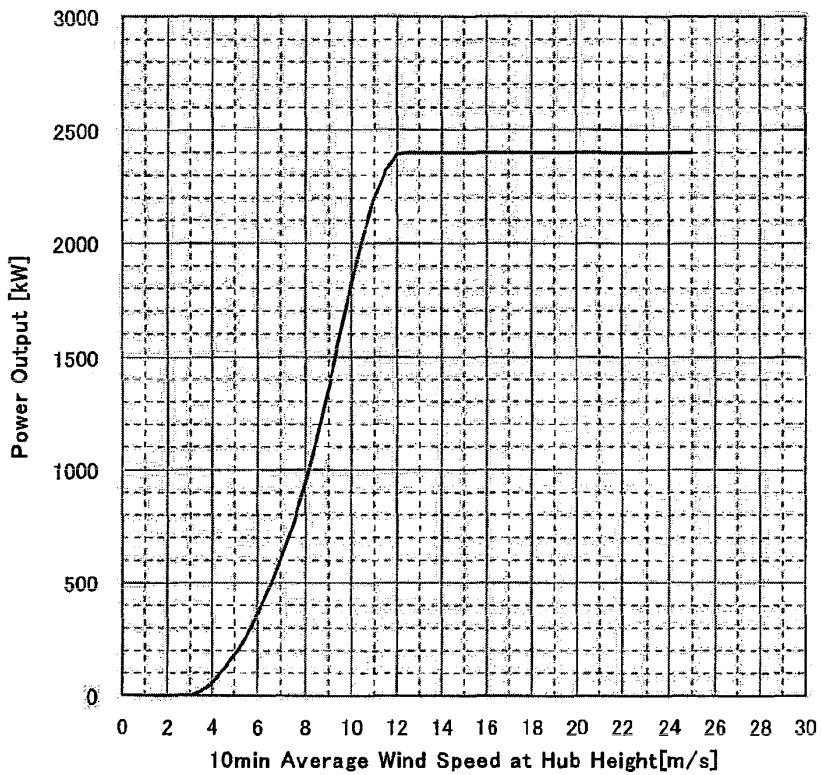
**Cold Weather Package**

Exhibit A-3 Power Curve and Thrust Curves

BB Aragonne Mesa-2

**Attachment-2 Standard Power Curve of MWT95/2.4:**

The Standard power curve of MWT95/2.4 is shown below. Also corresponding values are arranged and shown in the table form in the following page.  
Condition is the air density 1.225kg/m<sup>3</sup> (15°C of air temperature, 1013mbar of air pressure), clean rotor blades, horizontal and standard air flow.



**Remarks:**

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- The above data are valid at the 10 minutes average speed data measurement at the hub height only.
- The output is measured at the low voltage side of the transformer inside the nacelle.
- For the purpose of computing power output with respect to the power curve, the turbulence intensity is assumed to be 10%.
- This power curve assumes flat ground and the absence of any external factor that could affect the force or direction of wind transition of electrical energy. (for example, array loss, topography, grid loss, etc.)
- This power curve and the turbine specifications assume that the site wind condition is on or below IEC Class IIA Standards.

**Standard Power Curve for MWT95/2.4**

Condition is the air density 1.225kg/m<sup>3</sup> (15°C of air temperature, 1013mbar of air pressure), clean rotor blades, horizontal and standard air flow.

Wind Speed @ Hub Height (m/s)	Output Power (kW)	Wind Speed @ Hub Height (m/s)	Output Power (kW)
	Air Density $\gamma = 1.225$		Air Density $\gamma = 1.225$
3.0	0	14.5	2400
3.5	17	15.0	2400
4.0	58	15.5	2400
4.5	114	16.0	2400
5.0	182	16.5	2400
5.5	263	17.0	2400
6.0	361	17.5	2400
6.5	475	18.0	2400
7.0	608	18.5	2400
7.5	762	19.0	2400
8.0	941	19.5	2400
8.5	1140	20.0	2400
9.0	1361	20.5	2400
9.5	1595	21.0	2400
10.0	1828	21.5	2400
10.5	2035	22.0	2400
11.0	2203	22.5	2400
11.5	2322	23.0	2400
12.0	2396	23.5	2400
12.5	2400	24.0	2400
13.0	2400	24.5	2400
13.5	2400	25.0	2400
14.0	2400	>25.0	0

**Remarks:**

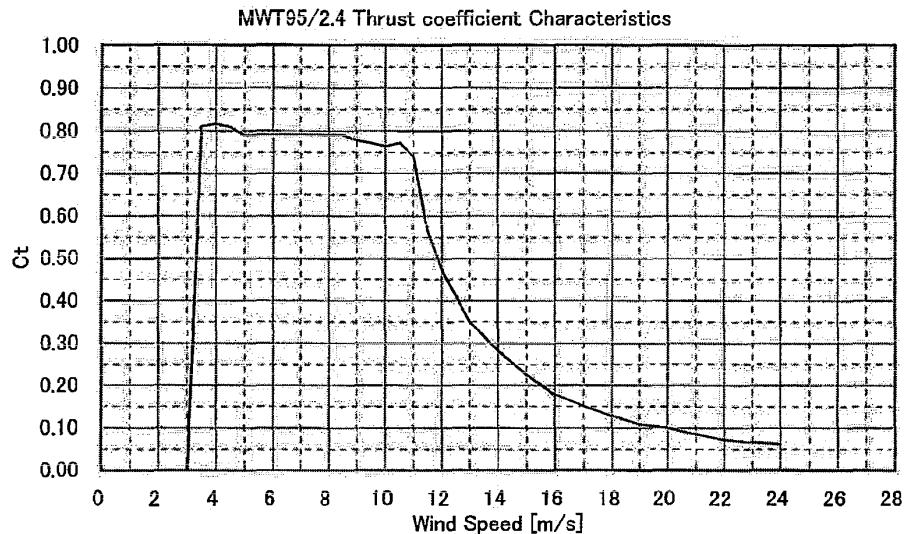
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- This power curve assumes flat ground and the absence of any external factor that could affect the force or direction of wind transition of electrical energy. (for example, array loss, topography, grid loss, etc.)
- This power curve and the turbine specifications assume that the site wind condition is on or below IEC Class II A Standards.

## MWT95/2.4 Thrust coefficient Characteristics

**Preliminary**

※Please put the thing agreement that may be changed  
numerical value in a document with design progress future.



Wind Speed [m/s]	Ct	Wind Speed [m/s]	Ct
2.0	0.000	10.5	0.772
2.5	0.000	11.0	0.739
3.0	0.000	11.5	0.566
3.5	0.810	12.0	0.475
4.0	0.816	13.0	0.351
4.5	0.809	14.0	0.282
5.0	0.789	15.0	0.226
5.5	0.791	16.0	0.179
6.0	0.791	17.0	0.152
6.5	0.791	18.0	0.129
7.0	0.791	19.0	0.109
7.5	0.791	20.0	0.101
8.0	0.791	21.0	0.085
8.5	0.791	22.0	0.072
9.0	0.777	23.0	0.066
9.5	0.771	24.0	0.062
10.0	0.764	25.0	0.060

- This is the value that calculated an aerodynamics calculation value of a wing for the cause.
- Environmental conditions for these values are air density of 1.225 kg/m<sup>3</sup>, the turbulence intensity is assumed to be 10%.
- The above data are valid at the 10 minutes average wind speed data measurement at the hub height only.

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**Exhibit A-4 Power Curve Correction for Air Density**

**MWT95/2.4****Electrical-power[kW] as a function of wind speed[m/s] at hub height  
and air density[kg/m<sup>3</sup>]**

Density	0.9800	1.0000	1.0500	1.1000	1.1500	1.2000	1.2250	1.2500
Wind Speed (m/s)	Power Output (kW)							
0.0	0	0	0	0	0	0	0	0
0.5	0	0	0	0	0	0	0	0
1.0	0	0	0	0	0	0	0	0
1.5	0	0	0	0	0	0	0	0
2.0	0	0	0	0	0	0	0	0
2.5	0	0	0	0	0	0	0	0
3.0	0	0	0	0	0	0	0	0
3.5	4	5	8	10	13	15	17	18
4.0	35	37	41	46	50	56	58	61
4.5	78	81	88	96	103	110	114	117
5.0	132	136	146	156	166	176	182	186
5.5	198	203	216	230	243	256	263	270
6.0	276	283	300	318	335	353	361	370
6.5	367	376	398	420	442	464	475	485
7.0	473	485	512	540	567	594	608	622
7.5	596	610	644	678	711	745	762	779
8.0	740	757	798	838	879	921	941	962
8.5	899	918	968	1017	1067	1116	1140	1164
9.0	1077	1099	1158	1216	1275	1332	1361	1390
9.5	1270	1297	1365	1431	1498	1563	1595	1627
10.0	1473	1504	1580	1653	1726	1795	1828	1860
10.5	1678	1711	1792	1866	1939	2005	2035	2065
11.0	1876	1909	1988	2055	2121	2178	2203	2227
11.5	2052	2081	2151	2206	2260	2305	2322	2340
12.0	2197	2221	2279	2318	2358	2390	2396	2400
12.5	2280	2298	2340	2361	2388	2393	2400	2400
13.0	2358	2370	2400	2400	2400	2400	2400	2400
13.5	2397	2400	2400	2400	2400	2400	2400	2400
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15.5	2400	2400	2400	2400	2400	2400	2400	2400
16.0	2400	2400	2400	2400	2400	2400	2400	2400
16.5	2400	2400	2400	2400	2400	2400	2400	2400
17.0	2400	2400	2400	2400	2400	2400	2400	2400
17.5	2400	2400	2400	2400	2400	2400	2400	2400
18.0	2400	2400	2400	2400	2400	2400	2400	2400
18.5	2400	2400	2400	2400	2400	2400	2400	2400
19.0	2400	2400	2400	2400	2400	2400	2400	2400
19.5	2400	2400	2400	2400	2400	2400	2400	2400
20.0	2400	2400	2400	2400	2400	2400	2400	2400
20.5	2400	2400	2400	2400	2400	2400	2400	2400
21.0	2400	2400	2400	2400	2400	2400	2400	2400
21.5	2400	2400	2400	2400	2400	2400	2400	2400
22.0	2400	2400	2400	2400	2400	2400	2400	2400
22.5	2400	2400	2400	2400	2400	2400	2400	2400
23.0	2400	2400	2400	2400	2400	2400	2400	2400
23.5	2400	2400	2400	2400	2400	2400	2400	2400
24.0	2400	2400	2400	2400	2400	2400	2400	2400
24.5	2400	2400	2400	2400	2400	2400	2400	2400
25.0	2400	2400	2400	2400	2400	2400	2400	2400

**Remarks:**

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- This power curve and the turbine specifications assume that the site wind condition is on or below IEC Class IIA Standards.

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**Exhibit A-5**

**Columnar Control Strategy (Deliverable)**

*(Deliverable once Project Site has been selected.)*

**Exhibit B-1**

**Site Conditions**

**SITE CLIMATIC CONDITIONS FOR THE  
[ ] PROJECT SITE**

**TECHNICAL REPORT**

**[Document No. \_\_\_\_\_]**

**Prepared by : [Buyer Name]**

**Information provided by : [Meteorologist Name]**

**Prepared For Mitsubishi Power Systems, Inc**

**Date: \_\_\_\_\_**

**VERSION : \_\_\_\_\_ Dated : \_\_\_\_\_**

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**Appendix-1.....Form of Seismic Data****Appendix-2.....Form of Site Ambient Condition****Appendix-3----Topographic Site Map (Electronic Map on CD)**

**I. Introduction**

Mitsubishi Power Systems, Inc (Hereinafter "MPS") requested [Buyer] to provide a Technical Report in hard copies, which properly addresses and describe each specific parameter of Site Climate Conditions.

MPS has reminded Buyer that it needs to be submitted by a "Report" basis, which represents Customer's reasonable explanation and/or interpretation to the Site Condition. Buyer understands that MPS refuse to analyze any raw wind data, because it may require MPS's own interpretation to such raw data and Site Condition should be described or be interpreted only by Buyer.

In the event Buyer does not have particular information in any item, Buyer intends to provide its own assumption (such as "IEC Standard basis").

The information provided has been complied from information analyzed by (i) \_\_\_\_\_, a meteorological firm used & retained by the Buyer and generally accepted in the wind power finance community or (ii) by the Buyer and its internal professional meteorological & engineering resources.

**II. General Information about the Site**

Site Address [ ]

i. **Topographic Site Map**

The Topographic map is a USGS 7 1/2 minutes series of the project site

[Insert Site Topographic Map with WTGs Layouts with contour lines]

**ii. Coordinates of Wind Turbines**

**The Coordinates provided are in UTM, Datum NAD27**

Turbine ID	Easting Distance	Northing Distance	Zone
1	381552	3881335	11S
2	381572	3881228	11S
3	381387	3881001	11S
4	381248	3881012	11S
5	381199	3880867	11S
6			

**Above Figures are Example Only**

**iii. Coordinates of Meteorological Measuring Masts**

**The Coordinates provided are in UTM, Datum NAD27.**

Turbine ID	Easting Distance	Northing Distance	Zone
Tower 1	381552	3881335	11S
Tower 2	381572	3881228	11S
Tower 3	381387	3881001	11S
Tower 4	381248	3881012	11S
Tower 5	381199	3880867	11S
Tower 6	382290	3812343	11S
Tower 7	383420	3812222	11S
Tower 8	382490	3811111	11S
Tower 9	383214	3811223	11S

**Above Figures are Example Only**

**III. Site Specific Condition used in fatigue load calculation**

**i. Annual mean air density**

The annual mean air density is \_\_\_\_\_ kg/ $\text{m}^3$ .

**ii. Wind Shear Exponent**

The average wind shear exponent under normal condition is \_\_\_\_\_.

**iii. Up flow angle**

The maximum upflow angle is \_\_\_\_\_.

**iv. Annual mean temperature**

The annual mean temperature is \_\_\_\_\_.

- iv. Wind Speed and Direction Frequency Distribution at hub height (for each mast used) (Editor's Note: If Buyer and/or Buyer's third-party meteorologist so chooses, the following information may be provided in 30 degree direction bins instead of 10 degree direction bins as depicted in the table. For avoidance of doubt, Buyer acknowledge that an accuracy of analysis for curtailment would be inferior to the data with 10 degree direction bins.)

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MPSANDTX0000796

Mast # I ]  
Normalized Joint Wind Speed / Direction Percent Frequency Distribution

Direction	Wind Speed (m/s)													Mean Speed														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	>25	Total
0																												
10																												
20																												
30																												
40																												
50																												
60																												
70																												
80																												
90																												
100																												
110																												
120																												
130																												
140																												
150																												
160																												
170																												
180																												
190																												
200																												
210																												
220																												
230																												
240																												
250																												
260																												
270																												
280																												
290																												
300																												
310																												
320																												
330																												
340																												
350																												
Total																												8760

**iv. Annual mean wind speed at hub height (for each turbines)**

Turbine ID	Hub Height Wind Speed (m/s)	Hub Height
1	8.56	69m
2	7.21	69m
3	7.32	69m
4	8.00	69m
5	7.87	69m
6	8.60	69m
7	8.30	69m
8	8.20	69m
9	8.01	69m
10	8.23	69m
11	8.35	69m
12	8.53	69m
13	8.30	69m
14	8.37	69m
15	8.44	69m

**Example**

v. **Turbulence Intensity (mean, std. deviation and characteristic value) as a function of wind speed at hub height (for each mast).**

Mast # [ ]

## Turbulence Intensity Summary

Wind Speed (m/s)	Hours	Mean Turbulence Intensity	Standard Deviation Turbulence Intensity	Characteristic Turbulence Intensity
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
>25.5				
Total				

**vi. Measured wind shear values at each mast**

**The actual measured wind shear values at each mast are presented on the following tables.**

Mast # [ ]  
Shear Results XX/XXm

Wind Speed (m/s)	Hours	Mean Shear	Max Shear	Minimum Shear
0				
1				
2				
.3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
>25.5				
Total				

**IV. Site Specific Conditions used in extreme load calculation**

**i. Air Density in extreme wind condition**

The air density in extreme wind condition is \_\_\_\_\_ kg/ $\text{m}^3$ .

**ii. Wind shear exponent in extreme wind condition**

The wind shear exponent in extreme wind condition is \_\_\_\_\_.

**iii. Upflow angle in extreme wind condition**

The upflow angle in extreme wind condition is \_\_\_\_\_.

**iv. 1 year return 3-second gust wind speed at hub height**

The 1 year return 3-second gust wind speed at hub height is \_\_\_\_\_ m/s.

**v. 50 year return 10-minute gust wind speed at hub height**

The 50 year return 10-minute gust wind speed at hub height is \_\_\_\_\_ m/s.

**vi. 50 year return 3 second gust wind speed at hub height**

The 50 year return 3-second gust wind speed at hub height is \_\_\_\_\_ m/s.

**vii. Temperature**

Annual mean temperature : \_\_\_\_\_.

Annual highest temperature: \_\_\_\_\_.

Annual lowest temperature: \_\_\_\_\_.

**V. Met Tower Configuration**

- i. Measuring height
- ii. Anemometer
- iii. Data duration available for the report

The measuring height, type of anemometer and data duration available for the report can be found on the table below.

**Meteorological Instrumentation**

Mast ID	Anemometer Heights (m)	Anemometer - [NRG Max #40]	Wind Vane Heights (m)	Wind Vane	Data Duration
1	25	OTECH Calibrated Serial#13985	25	NRG#200P	03 Dec 98 up to date
2	27	OTECH Calibrated Serial#13986	27	NRG#200P	03 Dec 98 up to date
3	25	OTECH Calibrated Serial#13922	21	NRG#200P	03 Dec 98 up to date
4	51	OTECH Calibrated Serial#13921	51	NRG#200P	03 Dec 98 up to date
	36	OTECH Calibrated Serial#13935	29	NRG#200P	03 Dec 98 up to date
	30	OTECH Calibrated Serial#13945	10	NRG#200P	03 Dec 98 up to date
5	51	OTECH Calibrated Serial#13987	10	NRG#200P	03 Dec 98 up to date
	40	OTECH Calibrated Serial#13987	10	NRG#200P	03 Dec 98 up to date
	31	OTECH Calibrated Serial#13987	10	NRG#200P	03 Dec 98 up to date
6	28	OTECH Calibrated Serial#13999	29	NRG#200P	03 Dec 98 up to date
	18	OTECH Calibrated Serial#13923	10	NRG#200P	03 Dec 98 up to date
7	10	OTECH Calibrated Serial#13942	10	NRG#200P	03 Dec 98 up to date
8	10	OTECH Calibrated Serial#13945	10	NRG#200P	03 Dec 98 up to date
9	49	OTECH Calibrated Serial#13983	50	NRG#200P	03 Dec 98 up to date
	38	OTECH Calibrated Serial#13982		NRG#200P	03 Dec 98 up to date
	24	OTECH Calibrated Serial#13997		NRG#200P	03 Dec 98 up to date
5321	50	OTECH Calibrated Serial#13983	50	NRG#200P	03 Dec 98 up to date
	30	OTECH Calibrated Serial#13912	30	NRG#200P	03 Dec 98 up to date
	10	OTECH Calibrated Serial#13953		NRG#200P	03 Dec 98 up to date

### **Appendix -I : Format of Seismic Data**

Every structure shall be designed and constructed to resist the effects of earthquake motions and assigned a seismic design category. Ground motion accelerations, represented by response spectra and coefficients derived from these spectra shall be determined in accordance with the applicable building codes in the jurisdiction where the project is located.

The information to be provided shall be certified as evidenced by a Licensed Professional Engineer's stamp in the jurisdiction where the project is located.

- o Location of the Project:
  - o State of: \_\_\_\_\_
  - o County(s) of: \_\_\_\_\_
  - o Known Seismic Source: \_\_\_\_\_
  
- o Professional Civil/Structural Engineer
  - o Name: \_\_\_\_\_
  - o License: \_\_\_\_\_

Applicable Building Codes: [ ]

According to the applicable building code, the following different three formats shall be used separately.

#### **International Building Code – 2003 (IBC)**

Mapped maximum considered earthquake spectral response at short periods	S <sub>s</sub>	Section 1615.1	Figure 1615(1) MAXIMUM CONSIDERED EARTHQUAKE GROUND MOTION FOR THE CONTERMINOUS UNITED STATES OF 0.2 SEC SPECTRAL RESPONSE ACCELERATION (5 PERCENT OF CRITICAL DAMPENING), SITE CLASS B
Mapped maximum considered earthquake spectral response at 1-second period	S <sub>1</sub>	Section 1615.1	Figure 1615(2) MAXIMUM CONSIDERED EARTHQUAKE GROUND MOTION FOR THE CONTERMINOUS UNITED STATES OF 1.0 SEC SPECTRAL RESPONSE ACCELERATION (5 PERCENT OF CRITICAL DAMPENING), SITE CLASS B
Site Class		Section 1615.1.1	Table 1615.1.1 Site Class Definitions

**International Building Code – 2006 (IBC)**

Mapped maximum considered earthquake spectral response at short periods	$S_a$	Section 1613.5.1	Figure 1613.5(1) MAXIMUM CONSIDERED EARTHQUAKE GROUND MOTION FOR THE CONTERMINOUS UNITED STATES OF 0.2 SEC SPECTRAL RESPONSE ACCELERATION (5 PERCENT OF CRITICAL DAMPENING), SITE CLASS B
Mapped maximum considered earthquake spectral response at 1-second period	$S_1$	Section 1613.5.1	Figure 1613.5(2) MAXIMUM CONSIDERED EARTHQUAKE GROUND MOTION FOR THE CONTERMINOUS UNITED STATES OF 1.0 SEC SPECTRAL RESPONSE ACCELERATION (5 PERCENT OF CRITICAL DAMPENING), SITE CLASS B
Site Class		Section 1613.5.2	Table 1613.5.2 Site Class Definitions

**2001 California Building Code – Volume 2**

California Code of Regulations Title 24, Part 2, Volume 2 (Based on 1997 Uniform Building Code – Volume 2)

Seismic Zone		Volume 2, Division V - Soil Profile Types, Section 1636	Figure 16-2 SEISMIC ZONE MAP OF THE UNITED STATES
Known Seismic Source:		The location and type of seismic sources to be used for the design shall be established based on approved geotechnical data (e.g., most recent mapping of active faults by the United States Geological Survey or the California Division of Mines and Geology)	
Seismic Zone Factor	Z		Table 16-I—Seismic Zone Factor Z
Soil Profile Types	$S_a - S_f$		Table 16-J—Soil Profile Types
Closest Distance to Known Seismic Source			Distance in km
Seismic Coefficient	$C_a$		Table 16-Q Seismic Coefficient $C_a$
Seismic Coefficient	$C_v$		Table 16-R Seismic Coefficient $C_v$
Near Source Factor	$N_a^1$		Table 16-S Near-Source Factor $N_a^1$
Near Source Factor	$N_v^1$		Table 16-T Near-Source Factor $N_v^1$
Seismic Source Type <sup>1</sup>			Table 16-U Seismic Source Type <sup>1</sup>

## APPENDIX- 2 : Site Ambient Condition

<i>Project Site - Seasonal Ambient Conditions</i>												As of [ ]		
Parameter	unit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Animal
Mean Wind Speed	m/s													#DIV/0!
Mean Air Density	kg/m^3													#DIV/0!
Mean Humidity	%													#DIV/0!
Mean Temperature	C													#DIV/0!
Extreme Min. Temperature	C													0
Extreme Max. Temperature	C													0
Rain	mm													0.0
Snow	mm													0.0
Thunderstorm Days	Days													67

**APPENDIX- 3 : Topographic Site Map (Electronic Map on CD)**

- (1) **Electronic File need to be in Digital such as DXF File**
- (2) **Contour Line need to appear**

**Exhibit B-2**

**Site Plan (Layout)**

*(Deliverable once Project Site has been selected.)*

**Exhibit C**

**Form of Guaranty Agreement and Payment Letter of Credit**

**Exhibit C-1**

**MHI Guaranty Agreement**

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**GUARANTY**

**of**

**WIND TURBINE GENERATOR SUPPLY AGREEMENT**

**and**

**WARRANTY, PERFORMANCE TEST AND AVAILABILITY GUARANTY  
AGREEMENT**

**By**

**MITSUBISHI HEAVY INDUSTRIES, LTD.,**

**as Guarantor**

**in favor of**

**BABCOCK & BROWN INFRASTRUCTURE GROUP US LLC**

**as Owner**

**Dated as of June 5, 2007**

HOU:2691722.1

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## GUARANTY

This GUARANTY (this “Guaranty”) is made and delivered as of June 5, 2007, by MITSUBISHI HEAVY INDUSTRIES, LTD., a corporation organized under the laws of Japan (“Guarantor”), to and in favor of BABCOCK & BROWN INFRASTRUCTURE GROUP US LLC, a Delaware limited liability company, its successors and permitted assigns (“Owner”), in connection with that certain Wind Turbine Generator Supply Agreement, dated as of June 5, 2007 (the “Supply Agreement”), and that certain Warranty, Performance Test and Availability Guaranty Agreement, dated as of June 5, 2007 (the “Warranty Agreement”), and for purposes of this Guaranty, the Supply Agreement and the Warranty Agreement are collectively referred to as the “WTG Agreements”), each between Owner and Mitsubishi Power Systems Americas, Inc., a Delaware corporation (“Seller”). Capitalized terms used herein, and not otherwise defined herein, shall have the meanings given to such terms in Appendix 1- “Definitions” to the Supply Agreement. As used herein, all references to “Seller” shall mean and be a reference to Seller’s successors and permitted assigns.

## RECITALS

- A. This Guaranty is being delivered pursuant to the Supply Agreement.
- B. Seller is a subsidiary which is indirectly owned by Guarantor.
- C. The obligations of Guarantor hereunder are being incurred concurrently with the obligations of Owner and Seller under the WTG Agreements.

FOR VALUABLE CONSIDERATION, the receipt and sufficiency of which are hereby acknowledged by Guarantor, Guarantor and Owner hereby agree as follows:

## ARTICLE 1

### **REPRESENTATIONS AND WARRANTIES BY GUARANTOR**

1.1 Financial Benefit. Guarantor hereby acknowledges that it will derive a financial benefit if Seller enters into the WTG Agreements, and Guarantor understands that Owner would not enter into the WTG Agreements with Seller absent the execution and delivery of this Guaranty by Guarantor.

1.2 Representations re Capacity and Authority. Guarantor does hereby represent and warrant to Owner the following, each of which representations and warranties shall survive the execution of this Guaranty:

- (a) that it is a corporation duly organized and validly existing under the laws of Japan;
- (b) that it has all necessary corporate power and authority to execute and deliver this Guaranty;

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(c) that the execution and delivery of this Guaranty has been duly authorized by all necessary corporate action by Guarantor and that the individual or individuals executing this Guaranty for and on behalf of Guarantor have been duly authorized to do so;

(d) that this Guaranty, when executed and delivered by Guarantor, will be a valid and binding obligation of Guarantor, enforceable by Owner against Guarantor in accordance with its terms, except (i) as limited by applicable bankruptcy, insolvency, reorganization, moratorium, and other laws of general application affecting enforcement of creditors' rights generally, and (ii) as limited by laws relating to the availability of specific performance or other equitable remedies;

(e) that all material governmental authorizations or actions, that are required in connection with the execution and delivery by Guarantor of this Guaranty and the performance of its obligations shall be obtained or taken by Guarantor and they shall remain valid and in full force and effect for the term of this Guaranty and until the Seller's Obligations (as defined below) are finally and indefeasibly paid in full in cash;

(f) that execution, delivery and performance of this Guaranty do not and will not (i) violate any provisions of Guarantor's certificate of incorporation or bylaws, or any law, rule, regulation, order, judgment or decree applicable to or binding on Guarantor or any of its properties; (ii) violate, or result in any breach of or constitute any default under, any agreement or instrument to which Guarantor is a party or by which Guarantor or any of its properties may be bound or affected; or (iii) require the consent of any person under any existing law or agreement which has not already been obtained;

(g) that there is no pending or, to the best of Guarantor's knowledge, threatened action or proceeding affecting Guarantor before any court, governmental agency or arbitrator, which might reasonably be expected to materially and adversely affect the ability of Guarantor to perform its obligations under this Guaranty;

(h) that all financial statements, if any, heretofore delivered by Guarantor to Owner pursuant to this Guaranty are true, correct and complete as of the date submitted, do not fail to disclose any material liabilities, whether direct or contingent, fairly present the financial condition of Guarantor as of the date delivered and are prepared in accordance with generally accepted accounting principles consistently applied;

(i) that Guarantor possesses all franchises, certificates, licenses, permits and other governmental authorizations and approvals necessary for it to own its properties, conduct its businesses and perform its obligations under this Guaranty; and

(j) that Guarantor is not an "investment company" or a "company controlled by an investment company", as such terms are defined in the Investment Company Act of 1940, as amended, and is not subject to or is exempt from regulation under the Public Utility Holding Company Act of 1935, as amended, and the Federal Power Act of 1935, as amended.

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**ARTICLE 2**  
**GUARANTY**

2.1 **Guaranty.** Guarantor hereby unconditionally guarantees to Owner the full, prompt and complete payment and performance by Seller when due and payable under the WTG Agreements of any and all of Seller's duties and obligations to Owner thereunder, including, without limitation, the prompt payment of any and all damages which may become due and payable to Owner by Seller under the WTG Agreements and any and all obligations of Seller under the WTG Agreements that would become due but for the filing of a petition by or against Guarantor or Seller under any chapter of Title 11 of the United States Code, as now or hereafter in effect or any successor thereto (the "Bankruptcy Code") (all such obligations of Seller, collectively, "Seller's Obligations"). As used in this Guaranty, the term "Seller's Obligations" is intended to be construed broadly to include any and all duties and obligations of Seller to Owner under and pursuant to the WTG Agreements, and to include liability for any and all damages for which Seller becomes liable to Owner under the WTG Agreements; *provided, however,* Seller's Obligations in respect of such damages shall be limited to only those damages for which Seller is liable under the WTG Agreements after the conclusion of any arbitration, litigation or other similar proceedings specified in the WTG Agreements.

2.2 **Guaranty Absolute and Irrevocable.** This is an absolute and irrevocable guaranty of the payment and performance of Seller's Obligations, and is not a guaranty of collection, and covers any and all of Seller's Obligations pursuant to the WTG Agreements, including, without limitation, any novation, amendment or modification of the WTG Agreements.

2.3 **Nature of Guaranty.** The liability of Guarantor hereunder is independent of the obligations of Seller pursuant to the WTG Agreements and a separate action or separate actions may be brought and prosecuted against Guarantor, whether or not any action is brought or prosecuted against Seller or whether Seller is joined in any such action or actions.

2.4 **Authorization.** Guarantor hereby authorizes Owner, without notice or demand and without affecting Guarantor's liability hereunder, from time to time to (a) renew, compromise, extend, accelerate or otherwise change the time for payment of, or otherwise change the terms of, the WTG Agreements or Seller's Obligations under the WTG Agreements as may be mutually agreed by Owner and Seller from time to time, (b) to take and hold security for the payment and performance of this Guaranty and Seller's Obligations and to exchange, enforce, waive or release any such security or any part thereof and (c) release or substitute any one or more guarantors of, and/or other obligors on, this Guaranty and Seller's Obligations.

2.5 **Waivers.** Guarantor hereby waives the right to require Owner to proceed against or exhaust its remedies against Seller, or to pursue any other remedy in Owner's power under the WTG Agreements. Guarantor hereby waives the right to have the property of Seller first applied to discharge of Seller's Obligations. Owner may, at its election, exercise any right or remedy it may have against Seller, without affecting or impairing in any way the liability of Guarantor hereunder, except to the extent Seller's Obligations have been fully performed and/or finally and indefeasibly paid in full in cash. Guarantor hereby waives any defense arising out of the absence, impairment or loss of any right of reimbursement, contribution or subrogation or any other right or remedy of Guarantor against Seller, whether resulting from such election by Owner or otherwise. In addition,

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except as expressly set forth in Section 4.12, Guarantor hereby waives, to the fullest extent permitted by law and until all of Seller's Obligations have been fully performed and/or finally and indefeasibly paid in full in cash, (i) all benefits which might otherwise be available to Guarantor with respect to the WTG Agreements and this Guaranty under applicable law (including any future judicial decisions or legislation) and (ii) all other applicable defenses at law or in equity of a surety or guarantor generally. Guarantor hereby waives any right to setoff any amounts that are due and payable under the WTG Agreements that either Guarantor or Owner (to the extent Guarantor becomes subrogated to the rights of Owner through Guarantor's payment and performance of this Guaranty) may have against Seller until all of the Seller's Obligations have been fully performed and/or finally and indefeasibly paid in full in cash.

**2.6 Additional Waivers; No Subrogation.** Until all of Seller's Obligations have been performed in full and/or indefeasibly paid in full in cash, Guarantor shall have no right of subrogation to, and hereby waives, to the fullest extent permitted by applicable law, any right to enforce any remedy which Owner now has or may hereafter have against Seller in respect of Seller's Obligations. Guarantor hereby waives all presentments, demands for performance, notices of nonperformance, protests, notices of protest, notices of dishonor, notices of default or delinquency, notice of intent to accelerate, notice of nonpayment, and of the existence, creation or incurring of new or additional Seller's Obligations. In addition, Guarantor hereby waives any defense based upon (a) any amendment, modification or extension of the obligations hereby guaranteed and (b) any assertion or claim that the automatic stay provided by 11 U.S.C. §362 (arising upon the voluntary or involuntary bankruptcy proceeding of Seller or any permitted assignee), or any other stay provided under any other debtor relief law (whether statutory, common law, case law or otherwise) of any jurisdiction whatsoever, now or hereafter in effect, which may be or become applicable, shall operate or be interpreted to stay, interdict, condition, reduce or inhibit the ability of Owner to enforce any rights, whether now existing or hereafter acquired, which Owner may have against Guarantor. Guarantor hereby assumes the responsibility of being and keeping informed of the financial condition of Seller and all other circumstances bearing upon the risk of non-performance of Seller's Obligations which diligent inquiry would reveal, and agrees that Owner shall have no duty to advise Guarantor of information known to it regarding such condition or any such circumstances.

**2.7 Maximum Guaranteed Amount.** Notwithstanding anything to the contrary herein, the aggregate liability of Guarantor pursuant to this Guaranty shall not exceed (i) Seller's maximum liability as set forth in the last two sentences of the first paragraph of Section 15.17 of the Supply Agreement, and (ii) all costs and expenses incurred by Beneficiary in enforcing this Guaranty, including, without limitation, court costs and reasonable attorneys fees (it being understood that any payment indefeasibly made by or on behalf of Guarantor to Beneficiary, pursuant to a demand made upon Guarantor by Beneficiary or otherwise made by Guarantor pursuant to its obligations under this Guaranty, including any indemnification obligations, shall reduce Guarantor's maximum aggregate liability hereunder on a dollar-for-dollar basis). IN NO EVENT SHALL GUARANTOR OR OWNER BE SUBJECT TO ANY CONSEQUENTIAL, EXEMPLARY, EQUITABLE, LOSS OF PROFITS, PUNITIVE, TORT OR OTHER SIMILAR DAMAGES; PROVIDED THAT THIS LIMITATION SHALL NOT EXCLUDE LIABILITY FOR AMOUNTS OR ITEMS DESCRIBED IN THE SECOND AND THIRD SENTENCES OF THE FIRST PARAGRAPH OF SECTION 15.17 OF THE SUPPLY AGREEMENT.

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2.8 **Absolute Guaranty.** The liability of Guarantor under the Guaranty shall be absolute, unconditional and irrevocable irrespective of any of the following:

- (a) any lack of validity or enforceability of Seller's Obligations under the WTG Agreements;
- (b) the lack of power or authority of Guarantor to execute and deliver this Guaranty or of Seller to execute and deliver the WTG Agreements;
- (c) the failure of Seller to exist as a legal entity;
- (d) the consolidation or merger of Seller with or into any other corporation or other person, or the sale, lease or other disposition by Seller of all or substantially all of its assets to any other business entity, whether or not effected in compliance with the provisions of the WTG Agreements;
- (e) the bankruptcy or insolvency of Seller, the admission in writing by Seller of its inability to pay its debts as they mature, or its making of a general assignment for the benefit of, or entering into a composition or arrangement with creditors; and
- (f) any act, failure to act, delay or omission whatsoever on the part of Seller, or any failure to give to Guarantor notice of default in the making of any payment due and payable or performance due under this Guaranty or the WTG Agreements or notice of any failure on the part of Seller to do any act or thing or to observe or perform any covenant, condition or agreement by it to be observed or performed under the WTG Agreements.

2.9 **Seller.** It is not and shall not be necessary for Owner to inquire into the powers of Seller, or the managers, officers, directors, partners, trustees or agents acting or purporting to act on Seller's behalf and any Seller's Obligations made or created in reliance upon the professed exercise of such powers shall be guaranteed hereunder.

2.10 **No Amendment.** This Guaranty cannot be amended, terminated, revoked or cancelled without the prior written agreement of both Guarantor and Owner.

2.11 **Subordination.** Guarantor hereby agrees that any indebtedness of Seller, now or in the future owed to Guarantor with respect to any payment made by Guarantor to Owner under this Guaranty, shall be subordinated to the performance in full and/or prior and indefeasible payment in full in cash of all of Seller's Obligations. If any amount paid by Guarantor to Owner under this Guaranty shall be re-paid to Guarantor by Seller, and any of Seller's Obligations are outstanding, such amount shall be deemed to have been paid to Guarantor for the benefit of, and held in trust for Owner, and Guarantor shall cause the same to be paid to Owner promptly upon demand by Owner to be credited and applied toward payment of Seller's Obligations outstanding, whether matured or unmatured.

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**ARTICLE 3**

**COVENANTS OF GUARANTOR**

3.1 **Organization; Consents.** Guarantor hereby agrees that it shall maintain its corporate organization and existence under the laws of Japan, and that it shall continue to have all necessary corporate power and authority to perform this Guaranty. Guarantor hereby agrees that it will maintain in full force and effect all consents of any governmental or other authority that are required to be obtained by it, if any, with respect to this Guaranty and will obtain any that may become necessary in the future.

3.2 **Law.** Guarantor hereby agrees that it will comply in all material respects with all applicable laws and orders to which it may be subject if failure so to comply would materially impair its ability to perform its obligations under this Guaranty.

**ARTICLE 4**  
**MISCELLANEOUS**

4.1 **Failure or Indulgence Not Waiver.** No failure or delay on the part of Owner in the exercise of any power, right or privilege hereunder shall operate as a waiver thereof, nor shall any single or partial delay in or waiver of the exercise of any power, right or privilege preclude any other exercise of such powers, rights or privileges. The powers, rights and privileges hereunder are cumulative to, and not exclusive of, any powers, rights or privileges otherwise available to Owner, *provided, however,* nothing in this sentence shall constitute a guaranty of any damages (i) of the type expressly excluded from the WTG Agreements, or (ii) which are in excess of any limitations on the amount of damages provided in the WTG Agreements.

4.2 **Notices.** Any notice necessary or desirable to be given pursuant to this Guaranty shall be given to each affected party with proof of service attached. Notice shall be made either by: (a) registered mail, return receipt requested and shall be mailed, postage prepaid, to the address of said party set forth below; or (b) personal service; or (c) by reputable express courier service. Any notice given to a party under (a) shall be deemed effective on the party seven (7) days from the date of mailing, or, if given under (b) above, shall be deemed effective on the party on the date of such personal service, or if given under (c) above, shall be deemed effective on the party two (2) days from the date of delivery to the courier service. An additional and courtesy copy of each notice shall be given to each party's counsel as designated below by regular first class mail, postage prepaid, or by telecopier, and such courtesy copy shall be set forth on the proof of service. The address for the giving of notice on a party and its counsel may be changed by any party or its counsel by notice thereof to the other parties given in accordance with the terms hereof. Any subsequent owner of the Project shall be added to and included on the notice list in the event that such subsequent owner informs the other parties that it is an owner and provides an address for service.

To Owner: Babcock & Brown Infrastructure Group US LLC  
2 Harrison Street  
San Francisco, California 94105  
Attn: Hunter Armistead  
Facsimile: (415) 267-1500

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Telephone: (415) 512-1515

With a copy to: Babcock & Brown  
2 Harrison Street  
San Francisco, California 94105  
Attn: General Counsel  
Facsimile: (415) 267-1500  
Telephone: (415) 512-1515

To Guarantor: Mitsubishi Heavy Industries, Ltd.  
Nagasaki Shipyard & Machinery Works  
1-1 Akunoura Machi  
Nagasaki 860-8610,  
Japan  
Attn: Rei Kimura  
Section Manager, Wind Turbine Business Section  
Machinery Business Department  
Facsimile: (81) 958-834-3490  
Telephone: (81) 958-834-3472

With a copy to: Mitsubishi Power Systems Americas, Inc  
Suite 4000, 100 Bayview Circle  
NewPort Beach, CA 92660  
Attn: Richard Sidkoff, General Counsel  
Telephone: (949) 856-8455  
Facsimile: (949) 856-4481/4482

**4.3 Severability.** If any provision of this Guaranty shall for any reason be determined by a court of competent jurisdiction (and sustained on appeal, if any) to be unenforceable by Owner in any respect, such unenforceability shall not affect any other provisions hereof, and this Guaranty shall be construed as if such unenforceable provision had not been contained herein; provided, if any provision of this Guaranty shall be unenforceable by reason of a final judgment of a court of competent jurisdiction (and sustained on appeal, if any) based upon such court's ruling that said provision is unenforceable because of the unenforceable degree or magnitude of the obligation imposed thereby, said unenforceable obligation shall be reduced in magnitude or degree by the minimum amount necessary in order to provide the maximum degree or magnitude of rights which are enforceable by Owner, and this Guaranty shall be automatically and retroactively amended accordingly to contain such maximum degree or magnitude of said obligations which is enforceable by Owner, rather than the more burdensome but unenforceable original obligation. As used herein, "unenforceable" is used in the broadest and most comprehensive sense and includes the concepts of illegality, invalidity, void and voidable.

**4.4 WAIVER OF JURY TRIAL.** EACH OF THE PARTIES HERETO, BY EXECUTION AND DELIVERY HEREOF, HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY AND ALL RIGHT TO

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TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATING TO THIS GUARANTY OR THE TRANSACTIONS CONTEMPLATED HEREBY.

4.5 APPLICABLE LAW. THIS GUARANTY AND THE RIGHTS AND OBLIGATIONS OF THE PARTIES HERETO SHALL BE GOVERNED BY AND CONSTRUED AND ENFORCED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK, WITHOUT GIVING EFFECT TO THE CONFLICT OF LAW RULES THEREOF OTHER THAN SECTION 5-1401 OF THE NEW YORK GENERAL OBLIGATIONS LAW.

4.6 JURISDICTION.

4.6.1. In the event a dispute arises out of or relating to this Guaranty or the breach, termination or validity hereof, the aggrieved party shall provide written notification of the dispute to the other party. A meeting shall be held promptly between the parties hereto, attended by representatives of the parties with decision-making authority regarding the dispute, to attempt in good faith to negotiate a resolution of the dispute. If, within five (5) days after such meeting, the parties hereto have not succeeded in negotiating a resolution of the dispute, either party may refer the dispute to a court pursuant to Section 4.6.2.

4.6.2. EACH OF THE PARTIES HEREBY IRREVOCABLY CONSENTS AND AGREES THAT ANY LEGAL ACTION OR PROCEEDING BROUGHT TO ENFORCE THIS GUARANTY MAY BE BROUGHT IN ANY NEW YORK STATE OR FEDERAL COURT. EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY ACCEPTS FOR ITSELF AND IN RESPECT OF ITS PROPERTY AND ASSETS, UNCONDITIONALLY, THE NON-EXCLUSIVE JURISDICTION OF THE AFORESAID COURTS WITH RESPECT TO ANY SUCH ACTION OR PROCEEDING. EACH PARTY, TO THE FULLEST EXTENT PERMITTED BY LAW, HEREBY IRREVOCABLY WAIVES ANY OBJECTIONS IT MAY HAVE TO THE LAYING OF VENUE OF ANY SUCH PROCEEDING BROUGHT IN SUCH A COURT AND ANY CLAIM THAT ANY SUCH COURT IS AN INCONVENIENT FORUM.

4.6.3. With respect to any proceedings brought in the aforementioned courts, Guarantor appoints Marshall S. Turner, Condon & Forsyth LLP, Times Square Tower, 7 Times Square, NYC, NY 10036 to receive for and on its behalf service of process in such jurisdiction in any such enforcement proceedings.

4.6.4. Owner (i) irrevocably covenants, to the fullest extent permitted by applicable law, not to raise as a defense that, based on the court selected by Owner, the Guarantor may not defend itself in any proceeding, (ii) waives, to the fullest extent permitted by applicable law, any defense that the Guarantor may not raise a counter-claim, cross-claim, third-party claim or such similar claim in such proceeding, on the grounds that such counter-claim, cross-claim, third-party claim or similar claim, cannot be raised or maintained in the court selected by the Owner for such proceeding, and (iii) irrevocably agrees that if the court selected by Owner does not permit the Guarantor to raise or maintain a defense, counter-claim, cross-claim, third-party claim or similar claim in any proceeding on the grounds that such counter-claim, cross-claim, third-party claim or similar claim, cannot be raised or maintained in the court selected by the Owner for such proceeding, not to object to, and to cooperate in, the removal of such proceeding to another federal or state court with applicable jurisdiction in the United States, selected by the

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Guarantor, where such counter-claim, cross-claim, third-party claim or similar claim can be raised or maintained.

4.7 Assignability. The Guaranty shall be binding upon the parties hereto and their respective successors and permitted assigns and shall inure to the benefit of the parties hereto and their respective successors and permitted assigns. The obligations of Guarantor hereunder may not be delegated without the express written consent of Owner. In the event Owner is contemplating an assignment permitted under Section 15.2 of the Supply Agreement, Owner shall arrange for the simultaneous assignment of this Guaranty and the Warranty Agreement to the permitted assignee. Such assignee shall have the same rights, remedies and obligations as if originally named herein. Owner may collaterally assign this Guaranty upon notice to Guarantor to any entity providing construction or permanent financing for the Project which is the subject of the WTG Agreements.

4.8 Headings. Headings of the articles and sections of this Guaranty are inserted for convenience only and shall not be deemed to constitute a part hereof.

4.9 Expenses and Fees. Unless Seller or Guarantor is a party to any proceeding under the Bankruptcy Code, Owner agrees not to institute any suit for the collection of any amounts that are the subject of any arbitration, litigation or similar proceeding pursuant to either WTG Agreement, until such amounts have been determined by the arbitrator, or by the final order a court having applicable jurisdiction and all periods for appeal have expired, to be owing by Seller to Owner. In the event that litigation is commenced, then the prevailing party in such litigation, whether Owner or Guarantor, shall be entitled to an award of reasonable attorneys' fees and expenses, as determined by the court.

4.10 Interest; Collection Expenses. Any amount required to be paid by Guarantor pursuant to the terms hereof shall bear interest at the rate for late payments specified in the WTG Agreements from the date due until paid in full. If Owner is required to pursue any remedy against Guarantor hereunder, Guarantor shall pay to Owner, upon demand, all attorneys' fees and all other costs and expenses incurred by Owner in enforcing this Guaranty.

4.11 Termination. Subject to the provisions of Section 4.12 hereof and unless either Seller or Guarantor is involved in a proceeding under the Bankruptcy Code (a) the obligations of Guarantor hereunder shall terminate on the date that is ninety (90) days after the expiration of the Warranty Period (the "Final Date"), and (b) any litigation by Owner arising under this Guaranty in connection with an obligation existing on or before the Final Date shall be commenced by no later than the date that is the later of (i) one (1) year from the Final Date and (ii) only with respect to any underlying dispute that is pending with respect to either of the WTG Agreements, ninety (90) days after such pending dispute is resolved. The parties hereto hereby waive, to the extent permitted by Applicable Law, any longer periods available under Applicable Law, including any laws relating to statutes of limitation, in which to make claims and commence litigation and arbitration.

4.12 Reinstatement of Guaranty. This Guaranty shall be reinstated if at any time following the termination of this Guaranty under Section 4.11 hereof, any payment by Guarantor under this Guaranty or pursuant hereto, or by Seller under the WTG Agreements or pursuant thereto, is rescinded or must otherwise be returned by Owner or other person upon the insolvency,

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bankruptcy, reorganization, dissolution or liquidation of Seller, Guarantor or otherwise, and is so rescinded or returned to the party or parties making such payment, all as though such payment had not been made. Such period of reinstatement shall continue until satisfaction of the conditions contained in, and shall continue to be subject to, the provisions of Section 4.10, Section 4.11, Section 4.12 and Section 4.13 hereof.

**4.13 Limitation on Liability.** Notwithstanding anything to the contrary contained in this Guaranty, Guarantor's obligations under this Guaranty shall be subject to the same limitations as limit Seller's duties, obligations and liabilities under the WTG Agreements, and Guarantor shall be entitled to assert the same limitations of liability (including but not limited to monetary and time), and exclusions of types of damages, against Owner hereunder as Seller might assert against Owner under the WTG Agreements, and Guarantor shall be further entitled to assert hereunder all of the setoffs, counterclaims and other rights and defenses that Seller has under the WTG Agreements or otherwise, but excluding in each such case, any setoffs, counterclaims or defenses based upon invalid execution of the Agreement, incapacity of Seller, and defenses arising out of Seller's insolvency, bankruptcy, reorganization, dissolution or liquidation.

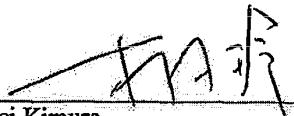
**4.14 Entire Agreement.** The terms and conditions set forth herein, together with the documents referenced herein, constitute the complete statement of the agreement between Guarantor and Owner relating to the subject matter hereof. No prior parol evidence may be introduced or considered at any judicial or arbitral proceeding for any purpose to interpret or clarify any term or provision of this Guaranty.

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**EXECUTION VERSION**

WITNESS the due execution and delivery by the parties hereto as of the date first above written.

GUARANTOR:  
MITSUBISHI HEAVY INDUSTRIES, LTD.

By:   
Name: Rei Kimura  
Title: Manager, Wind Turbine Business Section

OWNER:  
BABCOCK & BROWN  
INFRASTRUCTURE GROUP US LLC

By:   
Title: VICE PRESIDENT  
Name: DANIEL SEIFERT

**Exhibit C-2**

**Babcock Guaranty Agreement**

**Exhibit C-3**

**Form of Payment Letter of Credit**

Irrevocable Stand-by Letter of Credit

Number: \_\_\_\_\_

Issuance Date: \_\_\_\_\_

Mitsubishi Power Systems Americas, Inc.  
100 Bayview Circle, Suite 4000  
Newport Beach, CA 92660  
Attn: Mr.Tsuneo Nakano, Senior Vice President  
FAX No.: (949) 856-4481

Dear Sirs:

At the request and for the account of [ (LLC name) limited liability company] (the "Applicant"), [ (Bank Name) ], acting through its [ Branch] (the "Issuer"), hereby establishes in favor of Mitsubishi Power Systems Americas, Inc. (f/k/a Mitsubishi Power Systems, Inc.) (the "Beneficiary") our irrevocable stand-by letter of credit by our signature and your receipt thereof (the "Letter of Credit") with regard to payment obligations of the Applicant associated with the [ ] MHI MWT95/2.4MW wind turbine generators, towers and auxiliaries (the "Turbines") under a certain Wind Turbine Generators Supply Agreement, dated as of June 5, 2007, by and between the Applicant (as assignee of Babcock & Brown Infrastructure Group US LLC ("BBIGUS") in accordance with the Turbine Supplier Consent to Assignments, dated as of [ ], 200[ ], among Beneficiary, BBIGUS, Applicant, [ ], as collateral agent, and Issuer, as issuing bank), BBIGUS and the Beneficiary (the "Turbine Supply Agreement"). We undertake to unconditionally honor any Draft and Certificate presented by the Beneficiary in substantially the form of Annex A attached to this Letter of Credit and otherwise in compliance with the requirements of this Letter of Credit.

The maximum amount available under this Letter of Credit is [ ](\$ ) (the "Maximum Stated Amount"). The aggregate amount of drawings under this Letter of Credit shall not exceed the Maximum Stated Amount. Multiple and partial drawings may be made under this Letter of Credit in accordance with the requirements set forth below. Upon payment by us of any drawing under this Letter of Credit, the Maximum Stated Amount shall be reduced to the same extent. By accepting this Letter of Credit the Beneficiary agrees that following a payment under the Turbine Supply Agreement and pursuant to a Notice of Reduction substantially in the form of Annex B hereto and executed solely by the Administrative Agent, the Maximum Stated Amount shall be reduced to the extent of the "Amount of Payment" effective as of the "Date of Payment" indicated in such Notice of Reduction.

Only the Beneficiary may make drawings under this Letter of Credit. On or after the date hereof, drawings may be made by the Beneficiary from time to time by presentation to us of (a) a copy of this Letter of Credit (and, in the event of a drawing that would reduce the Maximum Stated Amount to zero, the original of this Letter of Credit) and (b) a Draft and Certificate

substantially in the form of Annex A completed and purportedly signed by an authorized officer of the Beneficiary. Such presentation may be made by fax, courier, or personal delivery at our address set forth below on any day on which banks in the City of New York, State of New York are open for business (such day a "Business Day") on or before the close of business on [ ] (the "Expiration Date").

This Letter of Credit shall expire on the earlier of the Expiration Date or on the date that the Maximum Stated Amount is reduced to zero whether or not it is surrendered. Upon expiration, the original Letter of Credit shall be promptly surrendered to us for cancellation.

We unconditionally agree to make payment in response to a drawing presented as required hereunder by wire transfer of the amount of such drawing to such bank account as may be designated by the Beneficiary in the applicable Draft and Certificate within two (2) Business Days after receipt of the Draft and Certificate.

Any such payment shall be in immediately available United States Dollars without any deduction for or on account of any present or future taxes, levies, imposts, duties, charges, fees, set off, counterclaims, deductions or withholdings of any nature whatsoever and by whomsoever imposed.

This Letter of Credit sets forth in full the terms of our undertaking hereunder, and, other than as specifically set forth herein, this undertaking shall not in any way be modified, amended, supplemented or limited by reference to any document, instrument or agreement referred to herein or to which this Letter of Credit relates.

This Letter of Credit is subject to the Uniform Customs and Practices for Documentary Credits, 1993 revision, ICC Publication No. 500 ("UCP"). This Letter of Credit shall be deemed to be made under and shall, as to matters not governed by the UCP, be governed by and construed in accordance with the laws of the State of New York, other than its conflict of laws rules that would result in the application of any jurisdiction other than the laws of the State of New York.

[ ] acting  
through its [ ] Branch

By: \_\_\_\_\_ By: \_\_\_\_\_  
Name: \_\_\_\_\_ Name: \_\_\_\_\_  
Title: \_\_\_\_\_ Title: \_\_\_\_\_

[ ]  
[ ] Branch  
[ ]  
[ ]  
Attn: [ ]  
Ph: [ ]  
Fax: [ ]

**Annex A**

**DRAFT AND CERTIFICATE**

[ ]  
[ ]  
[ ]  
[ ]  
Attn: [ ]  
Ph: [ ]  
Fax: [ ]

The undersigned hereby draws on the Letter of Credit No \_\_\_\_\_ issued by you in our favor. All capitalized terms used, but not defined herein, shall have respective meanings assigned to them in the Letter of Credit.

You are directed to make payment of the requested drawing by wire transfer in immediately available United States Dollars to account no. \_\_\_\_\_ at \_\_\_\_\_ [insert bank name, address and account number].

The undersigned, on behalf of the Beneficiary, certifies the following:

(a) The undersigned is duly authorized by the Beneficiary to execute and deliver this Draft and Certificate.

(b) The undersigned Beneficiary is making a drawing under the Letter of Credit in the amount of \$\_\_\_\_\_, and is entitled under the Turbine Supply Agreement to make such drawing. Such drawing, together with our previous drawings (if applicable), does not exceed the Maximum Stated Amount.

(c) [Select one or more of the following as applicable:]

(i) The Applicant is obligated, under Section [ ] of the Turbine Supply Agreement, to pay the amount of the drawing demanded hereunder, which amount is owed in connection with Applicant's obligations under the Turbine Supply Agreement, and Applicant has failed to make such payment.

and/or

(ii) The Beneficiary is entitled, under Section 4.4 of the Turbine Supply Agreement, to make the drawing of the amount demanded hereunder.

(d) The proceeds from this drawing under the Letter of Credit will be used to satisfy the Applicant's obligations to the Beneficiary under the Turbine Supply Agreement, and the Beneficiary will account to the Applicant under the above-mentioned Turbine Supply Agreement for the Beneficiary's use of the proceeds from this drawing.

Annex A-1

This demand for a drawing under the Letter of Credit and certification are made as of the date hereof.

Mitsubishi Power Systems Americas, Inc

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Annex B**

**FORM OF NOTICE OF REDUCTION**

[ ]  
acting through its [ ]  
[ ] Branch,  
[ ]  
[ ]

To: [ ]  
acting through its [ ] Branch,  
[ ]  
[ ]  
Attn: [ ]  
Ph: [ ]  
Fax: [ ]  
as "Issuer" of LC No. \_\_\_\_\_, and to

MITSUBISHI POWER SYSTEMS AMERICAS, INC., as "Beneficiary"

Address 1: Mr. Osamu Hamasaki Fax Number: (949)856-4481

Address 2: Mr. Koin Mochinaga Fax Number: (949)856-4481

Address 3: Mr. Fan Yonghui Fax Number: (407)688-6083

[ ], Administrative Agent under the Financing Agreement dated  
[ ] [ ], 2006 among [ ], LLC, a [ ] limited liability  
company, [ ], acting through its [ ] as Administrative Agent and  
Collateral Agent, [ ], acting through its [ ] Branch, as  
Syndication Agent; [ ], acting through its [ ] Branch, as Issuing  
Bank; [ ], [ ] Branch as Documentation Agent; and the Lenders  
thereto, hereby certifies to the Beneficiary and to the Issuer the payment of a portion of the  
Contract Price (as defined in the related Turbine Supply Agreement) by the Applicant to the  
Beneficiary as follows:

Date of Payment: [ ]

Amount of Payment: [ ]

Beneficiary's Account

Information (Bank name, account number,  
Reference); [ ]

Sender's Reference Number: [ ]

Transaction ID: [ ]

Annex B-1

In consequence, the Maximum Stated Amount of the captioned Letter of Credit is reduced by  
\$[\_\_\_\_\_] effective as of the Date of Payment above.

[ ]  
Acting through its [ ] Branch  
As Administrative Agent

By: \_\_\_\_\_  
Attention: [ ]  
[ ] (Phone) [ ] (Fax)

**Exhibit D**

**Delivery Schedule**

Exhibit - D  
Delivery Schedule (Wind Turbine)

PRELIMINARY note *1						
Commodity	Quantity	Cumulative	Ex Works	DDP Houston Port	CAT/TX/NM site	Remark
Nacelle * Note 2	16 sets	16 sets	on or before 11/15/08	on or before 01/15/09	on or before 01/30/09	
	16 sets	32 sets	on or before 11/30/08	on or before 01/30/09	on or before 02/15/09	
	16 sets	48 sets	on or before 12/15/08	on or before 02/15/09	on or before 02/28/09	
	19 sets	67 sets	on or before 12/30/08	on or before 02/22/09	on or before 03/15/09	
	8 sets	75 sets	on or before 01/15/09	on or before 03/16/09	on or before 03/30/09	
	8 sets	83 sets	on or before 01/30/09	on or before 03/30/09	on or before 04/15/09	
	8 sets	91 sets	on or before 02/15/09	on or before 04/15/09	on or before 04/30/09	
	8 sets	99 sets	on or before 02/28/09	on or before 04/30/09	on or before 05/15/09	
	8 sets	107 sets	on or before 03/15/09	on or before 05/16/09	on or before 05/30/09	
	8 sets	115 sets	on or before 03/30/09	on or before 05/30/09	on or before 06/15/09	
Blade * Note 3	8 sets	123 sets	on or before 04/15/09	on or before 06/15/09	on or before 08/30/09	
	8 sets	131 sets	on or before 04/30/09	on or before 06/30/09	on or before 07/15/09	
	16 sets	147 sets	on or before 05/15/09	on or before 07/16/09	on or before 07/30/09	
	16 sets	163 sets	on or before 05/30/09	on or before 07/30/09	on or before 08/15/09	
	16 sets	179 sets	on or before 06/15/09	on or before 08/15/09	on or before 08/30/09	
	16 sets	195 sets	on or before 06/30/09	on or before 08/30/09	on or before 09/15/09	
	11 sets	206 sets	on or before 07/15/09	on or before 09/15/09	on or before 09/30/09	
	16 sets	16 sets	on or before 11/15/08		on or before 01/30/09	
	16 sets	32 sets	on or before 11/30/08		on or before 02/15/09	
	16 sets	48 sets	on or before 12/15/08		on or before 02/28/09	
Tower	19 sets	67 sets	on or before 12/30/08		on or before 03/15/09	
	8 sets	75 sets	on or before 01/15/09		on or before 03/30/09	
	8 sets	83 sets	on or before 01/30/09		on or before 04/15/09	
	8 sets	91 sets	on or before 02/15/09		on or before 04/30/09	
	8 sets	99 sets	on or before 02/28/09		on or before 05/15/09	
	8 sets	107 sets	on or before 03/15/09		on or before 05/30/09	
	8 sets	115 sets	on or before 03/30/09		on or before 06/15/09	
	6 sets	123 sets	on or before 04/15/09		on or before 06/30/09	
	6 sets	131 sets	on or before 04/30/09		on or before 07/15/09	
	16 sets	147 sets	on or before 05/15/09		on or before 07/30/09	
Blade * Note 3	16 sets	163 sets	on or before 05/30/09		on or before 08/15/09	
	16 sets	179 sets	on or before 06/15/09		on or before 08/30/09	
	16 sets	195 sets	on or before 06/30/09		on or before 09/15/09	
	11 sets	206 sets	on or before 07/15/09		on or before 09/30/09	
	16 sets	16 sets	on or before 11/15/08		on or before 12/30/08	
	16 sets	32 sets	on or before 11/30/08		on or before 01/15/09	
	16 sets	48 sets	on or before 12/15/08		on or before 01/30/09	
	19 sets	67 sets	on or before 12/30/08		on or before 02/15/09	
	8 sets	75 sets	on or before 01/15/09		on or before 02/28/09	
	8 sets	83 sets	on or before 01/30/09		on or before 03/15/09	
Tower	8 sets	91 sets	on or before 02/15/09		on or before 03/30/09	
	8 sets	99 sets	on or before 02/28/09		on or before 04/15/09	
	8 sets	107 sets	on or before 03/15/09		on or before 04/30/09	
	8 sets	115 sets	on or before 03/30/09		on or before 06/15/09	
	6 sets	123 sets	on or before 04/15/09		on or before 06/30/09	
	6 sets	131 sets	on or before 04/30/09		on or before 07/15/09	
	16 sets	147 sets	on or before 05/15/09		on or before 07/30/09	
	16 sets	163 sets	on or before 05/30/09		on or before 08/15/09	
	16 sets	179 sets	on or before 06/15/09		on or before 08/30/09	
	16 sets	195 sets	on or before 06/30/09		on or before 09/15/09	
Tower * Note 1	11 sets	206 sets	on or before 07/15/09		on or before 09/30/09	
	16 sets	16 sets	on or before 11/15/08		on or before 12/30/08	
	16 sets	32 sets	on or before 11/30/08		on or before 01/15/09	
	16 sets	48 sets	on or before 12/15/08		on or before 01/30/09	
	19 sets	67 sets	on or before 12/30/08		on or before 02/15/09	
	8 sets	75 sets	on or before 01/15/09		on or before 02/28/09	
	8 sets	83 sets	on or before 01/30/09		on or before 03/15/09	
	8 sets	91 sets	on or before 02/15/09		on or before 03/30/09	
	8 sets	99 sets	on or before 02/28/09		on or before 04/15/09	
	8 sets	107 sets	on or before 03/15/09		on or before 04/30/09	
Tower * Note 1	8 sets	115 sets	on or before 03/30/09		on or before 06/15/09	
	8 sets	123 sets	on or before 04/15/09		on or before 06/30/09	
	8 sets	131 sets	on or before 04/30/09		on or before 07/15/09	
	16 sets	147 sets	on or before 05/15/09		on or before 07/30/09	
	16 sets	163 sets	on or before 05/30/09		on or before 08/15/09	
	16 sets	179 sets	on or before 06/15/09		on or before 08/30/09	
	16 sets	195 sets	on or before 06/30/09		on or before 09/15/09	
	11 sets	206 sets	on or before 07/15/09		on or before 09/30/09	

\*1 The detailed and final delivery schedule to site, including any change in the number of WTG delivered per month, shall be jointly developed in accordance with Section 5.5. and Section 5.3.(F), and it shall be the basis of LD calculation.

\*2 This item is to include all other parts necessary to achieve Mechanical Completion of a WTG.

\*3 CWP will available from 04/15/09 EXW (total ; 91 units)

**Exhibit E-1**

**Requirement to Seller under Permit**

*(Deliverable once Project Site has been selected.)*

**Exhibit E-2**

**Requirement to Seller under Power Purchase Agreement and Interconnection Agreement**

*(Deliverable once Project Site has been selected.)*

**Exhibit F**

**Pricing for Optional Items**

**Exhibit-F**  
**Optional Price Menu of Mitsubishi 2400KW Wind Turbine Generator**

Option #.	Option	Unit	Unit Price	Remarks
1	Yaw Bearing Automatic Grease Supply	Set/WTG	\$7,100.00	This pricing assumes Factory install
2	Fire Extinguishment System	Set/WTG	\$9,600.00	This pricing assumes Factory install
3	Additional Corrosion Protection  Note: Cannot be ordered separately (Breakdown provided for reference purpose only)	Each WTG	\$31,000.00 + \$7,700.00 =\$38,700.00	=Nacelle: Price assumes Factory install/painting =Tower: Price assumes Factory install/painting See Appendix-A "Condition of the optional Near-Shore Specification"
4	Special Turning Device Set	Set	\$23,800.00	Price excludes install at Site(Parts shipment only)
5	Special Service Winch Set	Set	\$80,100.00	Price excludes install at Site(Parts shipment only)

**1.1 Validity of Pricing**

Optional pricings are valid only up to January 31, 2008. Owner must select any options by such date.

**1.2 Payment Terms of the Options**

If selected by Owner, payment term of each item shall be as follows.

Option 1-3 : 100% of the Option Pricing shall become part of Contract Price(as price adder).

Option 4&5: 20% of the Option Price shall become due within 30 days following receipt of Purchase Order from Owner.  
80% of the Option Price shall become due within 30 days upon arrival at Site

**1.3 Cancellation Schedule of the Options**

- Option 1-3: Subject to cancellation Schedule in the Exhibit-R.
- Option 4&5: Subject to the following cancellation schedule.

	% of Pricing
Within 1 month following receipt of Purchase Order	20%
Within 2 month following receipt of Purchase Order	40%
Within 4 month following receipt of Purchase Order	80%
Thereafter	100%

**1.4 Delivery Schedule (Lead Time)**

If option is ordered within the Lead time for each items shall be as follows.

• Option 1-3: Same as the WTGs as presented in Exhibit-D, provided that Order need to be placed not later than 16 months prior to the Shipment (EXW Factory) of the first WTG, or cannot be selected

• Option 4&5: Within 10 months following receipt of Customers Purchase Order (for DEQ US PORT)

**1.5. Warranty for Options**

Seller shall provide Defect Warranty as sole warranty. If defect is found, Seller will either repair or replace the selected options as follows as sole and exclusive remedy of Customer and Sole Liability of Seller, provided that the determination of such repair or replace shall be made by Seller's sole discretion.

- Option 1-3: Same as for the WTGs as presented in Exhibit-D
- Option 4&5: Within 2 years following Site delivery of Selected options.

**1.6 Technical Description of the Optional Items**

Please refer to Attachment 5 of Exhibit-A-1(Technical Specification of WTG).

As for Additional Corrosion Protection (#3) only, please see Appendix-A "Condition of the optional Near-Shore Specification".

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**Exhibit G**

**Road Requirements for WTG Delivery**

*(to be confirmed)*

**Exhibit G Road Requirements for WTG Delivery for MWT95/2.4****Owner Preferences****Preliminary**

Commodity	Outside Road Radius Minimum (feet)	Inside Road Radius Minimum (feet)	Roadway width minimum (feet)	Maximum allowable road grade (percentage)
All Components	150	135	10	10%

**To be completed by MHI within 120 days of NTP**

Commodity	Overall trailer length w/ Commodity (feet)	Overall trailer weight w/ Commodity (pounds)	
		4.5m Diameter Tower	4.8m Diameter Tower
Nacelle F/on Side Module			
Nacelle Back Side Module			
Nacelle Bottom Side Module			
Wind Blade (1pc 46.2m blades/trailer)			
Tower (1st section)			
Tower (2nd section)			
Tower (3rd section)			
Tower (4th section)			

Exhibit H

Insurance

For purposes of this Exhibit the term "Subcontractors" shall mean the subcontractors and vendors of the Seller.

1.1 Disclosure. The Seller shall ensure that full and timely disclosure is made through the brokers or directly by the Seller to those insurers (the "Insurers") that are providing insurance cover in respect of any risk relating to the Wind Turbine Work and the construction work or the Project where the Seller is insured, of the following:

- (a) all relevant information of the type and nature in relation to the relevant policy reasonably requested by insurers to be disclosed;
- (b) without prejudice to the foregoing, all technical information to the extent reasonably required by insurers to be provided by the Seller under this Supply Agreement subject to binding confidentiality and restricted use agreements acceptable to Seller; and
- (c) all other information, including any changes in the information previously provided, which the Seller acting in accordance with good engineering practices and in good faith would have reasonably considered to be material to the relevant insurance coverage or the risks Owner is insuring against as detailed below.

1.2 [not used]

1.3 Insurance Coverage.

1.3.1. Insurance Obtained by Owner. Owner shall provide and maintain in full force and effect, at Owner's expense, the insurance coverage specified in this Section 1.3.1. Said insurance shall be primary without the right of contribution from any insurance carried by or on behalf of Seller or any additional insured. The existence of such insurance shall not excuse the Seller from any Warranty, Liquidated Damages or other contractual performance obligations.

1.3.1.1 Builder's Risk Insurance (BR): From the point of ground breaking for the Project through the Project Substantial Completion Date, or until such time as coverage is provided under the operational property insurance as set forth in Section 1.3.1.2. below, Owner shall procure and maintain Builder's Risk insurance covering physical loss or damage to the Project (including the WTGs) and the Project Site and include as insureds the Owner and as additional insureds, the Financing Parties, Seller and Subcontractors performing work at the Site or who furnish goods for the Site or the Project. Coverage shall be written on an "all risk", replacement cost basis, insuring the full replacement value of the Project

*Gulf Wind Exhibit -H Insurance*

(including the WTGs from and after delivery to the site or to a storage area on or adjacent to the Site, in either case, not unloaded) without deduction for depreciation. The coverage shall include, fire, explosion, extended coverage, expediting expense, collapse, sinkhole and subsidence. Coverage for earthquake, lightning, windstorm, flood and other catastrophic perils shall be provided with limits of liability commercially available at a reasonable cost. Such insurance shall cover all works and property comprising the Project during construction, testing, commissioning along with any and all materials, equipment and machinery intended for the Project during off-site storage and inland transit. The policy will include coverage for machinery breakdown and there shall be no exclusion for unintentional resultant damage caused by faulty workmanship, design or materials. Off-site storage and inland transit shall be written with limits commensurate with the respective replacement cost values at risk. Deductibles shall be in accordance with the requirements of financing documents. The policy shall be non-cancelable (except 10 days notification for non payment of premium) and shall provide a waiver of subrogation in favor of all insureds.

Any deductibles shall be for the account of the Owner, except that to the extent that the Seller is responsible for risk of loss, or to the extent that physical loss or damage is caused by the negligence of the Seller, then up to the first \$100,000 of the deductible shall be for the account of the Seller.

**1.3.1.2 "All Risk" Operational Property Insurance:** Beginning on the Substantial Completion Date, Owner shall convert the property coverage provided under the BR policy specified in Section 1.3.1.1 to an "all risk" operational property insurance policy and include as additional insureds the Financing Parties, Seller and Subcontractors performing work at the Site or who furnish goods or services for the Site or the Project. The policy shall be written on an "all risk", replacement cost basis, insuring the full replacement value of the Project without deduction for depreciation. The coverage shall include, fire, explosion, extended coverage, expediting expense and extra expense, collapse, sinkhole and subsidence. Coverage for earthquake, lightning, windstorm, flood and other catastrophic perils shall be provided with limits of liability commercially available at a reasonable cost. Such insurance shall cover all works and property comprising the Project at all times following Substantial Completion. The policy will include coverage for machinery breakdown and there shall be no exclusion for unintentional resultant damage caused by faulty workmanship, design or materials. Off-site storage and inland transit shall be written with limits commensurate with the respective replacement cost values at risk, if any. Any deductibles shall be for the account of the Owner, except that up to the first \$100,000 of the deductible shall be for the account of the Seller to the extent that the physical loss or damage is caused by the negligence of the Seller. The policy shall be cancelable with not less than 30 days notice (except 10 days notification for non payment of premium) and shall provide a waiver of subrogation in favor of all insureds. If the Owner maintains Business Interruption Insurance, Owner shall provide a waiver of subrogation in favor of all additional insureds.

**1.3.1.3 Owner and Other Contractor Property.** The Owner hereby waives, and shall require all insurers, Financing Parties, and their insurers to waive, all rights of recovery against the Seller and its Subcontractors and their stockholders, officers, directors,

*Gulf Wind Exhibit -H Insurance*

agents and employees, as well as Seller's and its Subcontractors parents and their stockholders, officers, directors, agents and employees, and affiliated companies, for any and all claims, actions, liabilities, and causes of action Owner or Financing Parties or Owner's other Contractors may have by virtue of damage to Owner's or Financing Parties' or Owner's other Contractor's property, including the Project and equipment at the Site, vehicles or any other property, resulting from operations or other activities occurring, or arising in connection with the Wind Turbine Work.

**1.3.2. Insurance Obtained by Seller.** Seller shall provide marine cargo insurance in accordance with the provisions of Section 1.3.2.1, below. Such insurance shall be primary without the right of contribution from any insurance carried by or on behalf of Owner or any additional insured.

**1.3.2.1Marine and Cargo:** In the case of air or overseas shipments of machinery, equipment or materials to be provided by Seller and intended for installation at the Site, Seller shall provide and pay for ocean marine and/or air cargo insurance, commencing and remaining in force as set forth in this Section 1.3.2.1 for the benefit of the Owner, Financing Parties and Seller and Subcontractors in an amount sufficient to cover claims on a replacement cost basis against loss of or damage to any and all machinery, equipment and materials to be provided by Seller and intended to become a part of the Project. Such ocean marine and/or air cargo insurance coverage shall commence with loading of the machinery and equipment, prior to dispatch to the Project, and remain in force until delivery (not unloaded) to the location designated by Owner adjacent to the crane pad location for such Wind Turbine at the Site, or if the crane pad location is not be available at the time Seller is ready to deliver the Wind Turbine, then until delivery (not unloaded) to a storage location identified by Owner on or adjacent to the Site. Such insurance shall cover all risks of loss or damage including war risk, strikes, riots and civil commotion, and shall have no less than a seven (7) day notice period in the event of cancellation for war risks, strikes, riots and civil commotion. Such policy or policies shall include a one hundred twenty (120) day concealed damage provision and extra/expediting expense coverage. Deductibles shall not exceed \$25,000 each loss and shall be for the account of the party bearing the risk of loss under the terms of this Supply Agreement. Seller shall provide timely notice and complete details of all shipments and shall comply, and cause all equipment providers to comply, with any survey requirements contained within the ocean marine/air cargo policy. Seller or Seller's designee shall be identified as loss payee, subject to the requirements of any mortgagee clauses under the Buyers Financing Documents. Owner and Financing Parties shall be included as Additional Insureds.

**1.3.3. Seller and Subcontractor Property.** The Seller hereby waives, and shall require all insurers, Subcontractors, and their insurers, to waive, all rights of recovery against the Owner and Financing Parties and their members, officers, directors, agents and employees, as well as Owner's and/or Financing Parties' parent and their members, officers, directors, agents and employees, and affiliated companies, for any and all claims, actions, liabilities, and causes of action Seller or Subcontractors may have by virtue of damage to Seller's or Subcontractors' property, including equipment, vehicles or any other property not forming a

*Gulf Wind Exhibit -H Insurance*

permanent part of the Project, resulting from operations or other activities occurring or arising in connection with the works.

1.3.4 Insurance Obtained by the Parties: Each of the Owner and Seller shall, during the term of this Agreement, maintain or cause to be maintained the following insurance commencing from the date on which the party mobilizes on the Site:

1.3.4.1 Worker's Compensation and Employer's Liability: workers compensation insurance, disability benefits insurance and such other forms of insurance which may be required by law. The policy shall include an "All States" endorsement and USL&H endorsement, if the exposure exists. Employer's Liability coverage shall be written with limits of:

- Bodily Injury by Accident \$500,000 Each Accident
- Bodily Injury by Disease \$500,000 Each Employee
- Bodily Injury by Disease \$500,000 Policy Limit

1.3.4.2 Automobile Liability: Automobile liability insurance, to the extent required by law covering owned (if any), hired and non-owned automotive equipment with a combined single limit of \$1,000,000 per occurrence.

1.3.4.3 Commercial General Liability: Commercial general liability insurance with limits as set forth below, which limits may be achieved in combination with Umbrella/Excess coverage limits. Subject to the terms of the policy, coverage shall include, as applicable, the following: premises/operation, explosions, blasts (if any), excavation, collapse and underground hazards, blanket contractual liability (shall not be endorsement or otherwise exclude coverage for liability assumed under Article 11, "Indemnification" of the Supply Agreement, or Article 8, "Indemnification" of the Warranty Agreement), independent contractors, products and completed operations, and personal injury. The policy shall contain no exclusion pertaining to punitive or exemplary damages. The limits to be maintained by the parties shall be as follows:

(i) as respects Owner: \$1,000,000 per occurrence  
\$2,000,000 aggregate combined single limit for  
bodily injury and property damage.

(ii) as respects Seller: \$1,000,000 per occurrence  
\$2,000,000 aggregate combined single limit  
for  
bodily injury and property damage.

1.3.4.4 Umbrella/Excess Liability Insurance: Excess Liability insurance with limits as set forth below. Such policy shall be written on an occurrence basis and provide

*Gulf Wind Exhibit -H Insurance*

coverage over and above that provided by the policies described in Section 1.3.4.1, 1.3.4.2 and 1.3.4.3 above, on a follow form basis and shall drop down to provide primary coverage in the event any of the underlying policy limits are exhausted. The limits to be maintained by the parties shall be as follows:

- (i) as respects Owner: \$5,000,000 per occurrence/aggregate
- (ii) as respects Seller: \$ 5,000,000 per occurrence/aggregate

**1.3.5 Seller's Subcontractors and Owner's other Contractor's Insurance.**

Seller and Owner shall ensure that each of Seller's Subcontractors performing work at the Site and Owner's other Contractors performing work at the Site procure and maintain, at their own expense, the insurance coverage specified in this Section 1.3.5. Such insurance shall be primary without the right of contribution from any insurance carried by or on behalf of the Owner, Seller and any additional insured and shall remain in force until completion and final acceptance by Owner of all portions of the work. Each policy described hereunder shall contain terms and conditions reasonably acceptable to Owner and Seller and shall be issued by insurers reasonably acceptable to the Parties, such acceptance not to be unreasonably withheld, delayed or conditioned. Each Party shall forward upon written request to the other Party certificates evidencing that the coverage is in effect. Such coverage shall also provide endorsements and other requirements consistent with 1.3.6 below.

**1.3.5.1 Commercial General Liability Insurance:** Commercial general liability insurance written on an occurrence basis with a combined single limit of liability of \$1,000,000 per occurrence and a \$1,000,000 general aggregate limit of Liability. Subject to the terms of the policy, coverage shall include, as applicable, the following: premises/operations, explosion, blasting (if any), excavation, collapse and underground hazards, blanket contractual liability, independent contractors, products and completed operations, and personal injury. The policy shall contain no exclusion pertaining to exemplary damages.

**1.3.5.2 Automobile Liability Insurance:** Automobile liability insurance covering all owned, non-owned, hired, and leased vehicles, and providing limits of \$1,000,000 combined single limit.

**1.3.5.3 Workers' Compensation Insurance:** Workers' Compensation Insurance as required by applicable law, including Employers' Liability with limits of \$500,000 per occurrence, and to include any other statutory or federal coverage if applicable.

**1.3.5.4 Excess/Umbrella Liability Insurance:** Consistent with Seller's and Owner's contracting practices excess liability coverage over that required in 1.3.5.1, 1.3.5.2 and 1.3.5.3 above, but in any event not less than \$2,000,000 per occurrence and in the aggregate.

*Gulf Wind Exhibit -H Insurance*

**1.3.6 Endorsements and Other Requirements.** The insurance carried in accordance with Section 1.3.4 above shall conform to the endorsements and/or requirements as specified below:

(a) **Notice of Cancellation:** Each party shall cause Insurers to provide (30) days written notice by the insurance carrier to the other Party and the Financing Parties in the event of cancellation, or non-renewal, with the exception of nonpayment of premium, in which case ten (10) days written notice shall be provided for all insurance policies.

(b) **Additional Insured:** With the exception of Workers Compensation each Party shall (where applicable) have, the Owner, the Seller, its Subcontractors, MHI and Financing Parties and their respective partners, members, officers, directors, agents and employees, as well as the Seller's, Owner's and Financing Parties' respective parent and their partners, members, officers, directors, agents and employees and, where required by contract, any other party as may be reasonably requested named as an additional insured.

(c) **Waiver of Subrogation:** Each Party shall cause its respective insurers to waive all rights of subrogation against the Seller, MHI, Subcontractors, Owner, the owners of the land on which the Project is located, and Financing Parties and their respective partners, members, officers, directors, agents and employees, as well as Owner's and Financing Parties' respective parent and their partners, members, officers, directors, agents and employees and, where required by contract, any other party as reasonably requested. In addition, Insurers shall waive any right of set off and counterclaim and any other right to deduction whether by attachment or otherwise.

**1.3.7 Severability of Interest:** With the exception of the worker's compensation and employer's liability insurance required by this Exhibit J, all insurances required in accordance with this Exhibit J shall include a requirement to the effect that:

"Each of the several insured's or named insured's covered by this policy shall have the same protection he would have had, had this policy been issued individually to each of them; provided, however, that the inclusion hereunder of more than one insured shall not operate to increase the total liability of the insurer beyond the limit of liability stated in the policy."

"The respective rights, interests and protection provided for the Financing Parties shall not be compromised or invalidated, either directly or indirectly, as a result the deliberate act(s) of any other insured acting autonomously without the knowledge of the Financing Parties. For the purpose of this insurance, a deliberate act(s) shall mean any intentional act; and/or neglect and/or error and/or omission; failure to disclose any material fact, circumstance or occurrence; misrepresentation; and/or breach of any duty or condition, which may result in a reduction in, or declination of, coverage and/or insurance proceeds that would have otherwise been provided under this policy had the deliberate act(s) not occurred."

*Gulf Wind Exhibit -H Insurance*

1.3.8 Errors and Omissions: It is hereby understood and agreed that the coverage afforded by the insurance required herein shall not be invalidated or affected by any unintentional errors, omissions, or in any information required to be reported.

1.3.9 Security: All insurances required by this Exhibit J shall be maintained with insurers of recognized responsibility with an AM Best rating not less than A- and a financial size classification not less than VII or otherwise mutually acceptable to Owner, Financing Parties and Seller . In addition, all insurances shall strictly comply with all applicable laws, rules and regulations governing the placement and maintenance of insurance.

1.3.10 Non-Limitation of Liability: The limits of insurance specified in this Exhibit J shall not be deemed to limit the liability of Seller or Owner in tort or for their respective obligations under this Supply Agreement.

1.3.11 Evidence of Insurance/Rights to Inspect and Review: Prior to the commencement of any work, each Party shall provide the other Party with certificates of insurance, executed by an authorized representative of their respective insurance carrier(s) or broker(s), evidencing the coverage as required in this Exhibit H. Seller shall have the right but not the duty to inspect and review any policies provided pursuant to Section 1. 3.1.1, or 1.3.1.2.

1.3.12 Assistance with Claims: If either Party believes that a claim may be made under any of the indemnity provisions set forth in this Supply Agreement or a claim may be made under any insurance coverage held by the other Party, such Party shall promptly notify the other Party and each Party shall afford such commercially reasonable assistance to the other Party as may be necessary for notification, preparation, negotiation and resolution of any insurance claim.

1.3.13 Material Alteration of Insurance: Neither Owner nor the Seller shall make any material alteration to the terms of any insurance without the other's prior written approval.

1.3.14 Survival: The provisions of this Exhibit H which by their terms survive completion of Final Completion or termination of the Supply Agreement shall remain in full force and effect after such Final Completion or termination.

*Gulf Wind Exhibit -H Insurance*

**EXHIBIT - I**

**DESCRIPTION OF OWNER'S WORK**

The Owner shall undertake the works including but not limited the following tasks:

**1. Permits: As required**

**2. Project Engineering & Design:**

The owner shall provide the engineering & design of the project, including:

- Civil: roads, crane pads, turbine foundations
- Electrical: site electrical distribution/collection, grounding systems, substation, transmission line and interconnection facilities
- SCADA and telemetry systems
- O&M building, and any other necessary facilities

**3. Equipment & Material:**

- a. Wind Turbine Equipment: Seller shall supply WTG equipment to include Nacelle, Tower & Blades for delivery to the turbine pad or other such designated area by the Owner
  - In the event Owner cannot provide' Seller the access road in accordance with Seller's road requirement, then Owner shall provide necessary arrangement at its cost, such as arrangement of off-road heavy haul equipment, and insurance coverage which is not covered by Seller's transportation company's insurance
  - Owner or BOP Contractor shall complete the unloading of each Wind Turbine, components, equipment, Parts and Special Tools in accordance with the conditions in the Agreement
  - Owner shall unload or cause to be unloaded, all turbine equipment then being delivered from each delivery truck, and Owner and Seller shall check-off such turbine equipment so delivered pursuant to a delivery

process check-sheet ("Unloading Checksheet") enclosed in the Turbine Installation and Erection Manual. The unloading, subsequent transportation, if any, and storage, if any, at the Site shall be carried out by Owner (or BOP Contractor) in accordance with the Turbine Installation and Erection Manual and the Specifications at Owner's expense. Seller and Owner shall make good faith efforts to avoid delays that would result in the incurrence of demurrage charges.

- Owner shall collect and load the material in the "Return material List"(issued latter) on the trailers provided by the Seller, like as as transportation cover, some frame etc. Those material belonging to the Seller's property shall be returned to the Seller.
- Owner shall provide security for such WTG equipment (and its related parts and tools) after delivery

b. Balance of Plant Equipment: Owner shall supply all Balance of Plant Equipment to include:

- MV switchgear at each wind turbine
- Medium Voltage underground collection feeder equipment
- Medium Voltage overhead collection system equipment
- MV switchgear and MV Switchyard, including capacitors
- Project Substation equipment to include: step up transformer, circuit breakers, disconnect switches, surge arresters, metering, bus-work, protective relaying, dead-end structures, ground grid, lightning protection, controls and communications, auxiliary power supplies, control buildings and associated transmission line connection equipment
- SCADA to include RTU equipment and interface
- Communications systems
- O&M Building
- Meteorological towers and monitoring equipment

**4. Construction:**

The Owner shall be responsible for constructing, installing and maintaining the following facilities, and Owner shall procure and pay for all materials, equipment and tools,

supplies, consumables, transportation, labor, supervision and other services necessary for such proper assembly and for the proper installation and erection of the Components (except for the Special Tools):

a. Civil:

- Road intersection widening/turning radius modification: Construct/modify county and/or state road intersections in order to accommodate traffic and deliveries to the Project; remove modifications at the end of the construction process, as necessary
- Turbine foundations
- Crane pads adjacent to each WTG foundation sufficient to enable the erection crane(s) to operate safely and taking into account of the WTG suppliers requirements
- Turbine grounding system

b. Mechanical & Electrical:

- WTG installation/erection, control panel and cable installation, tower alignment and grouting, tower erection, cable drops and terminations in accordance with Seller's Turbine Installation and Erection Manual and the achievement of Mechanical Completion of the WTG
- Installation, including wiring, of FAA lights with brackets and controllers;
- Fabricate supports for controller and FAA lights.
- MV Switchgear (Disconnecting Switch) on the Tower Bottom floor
- MV connection to Switchgear located on the Tower Bottom floor
- MV underground collection system
- MV overhead collection system (if required)
- O&M building and parking lot (if required)
- MV Switchgear
- MV Capacitors and associated switchgear and controller
- Communications systems (including FO for Wind Project SCADA, telemetering equipment associated with the Substation as required by AEP standards, voice and data communications at the O&M building and as required for a fully functional integrated wind power generation project)
- Substation SCADA, RTU and communications systems

- The Project SCADA Q Project Substation including grounding system
- Interconnection Facilities
- Meteorological towers and monitoring equipment
- Energization of the control system of a Wind Turbine or the Wind Turbines, as the case may be, and the Project Interconnection Facilities from the Point of Interconnection, with the ability to deliver positive energy from the Wind Turbines through the Point of Interconnection
- Provide necessary diesel generator and temporary transformer for Pre-commissioning if Owner would request Seller to conduct Pre-commissioning, provided however Owner shall be also responsible for connection and disconnection work between the Wind Turbine and such Diesel Generator/Temporary Transformer

c. Operation, Start-up and Commissioning:

- Operation of the Wind Turbine shall be by the Owner or others, including during Start-up and Commissioning (Seller shall conduct the start-up and commissioning of the turbines, but the operation of the Wind Turbines shall be by the Owner or others)

d. Temporary Facilities:

- Roads and crane routes to be maintained continuously, taking into account the WTG delivery trailers transfer and Seller's requirements
- Lay down areas (and restoration after construction)
- WTG erection staging area: sufficiently prepared so as to enable staging and assembly of the WTG rotor
- Dust and weed control
- Silt fence/erosion control
- Construction site office (or trailer) for Seller, equipped with telephone line, and Ethernet

e. Site Management:

- Site safety regulation and execution

- Site clean-up and re-vegetation: remove all contractor's equipment and tools, remove and properly dispose of all trash, areas disturbed by construction.

**5. Quality Control:**

During the construction of Project, Owner shall cause its respective licensed engineers or qualified technical representatives to make periodic site inspections of the construction and share the information with" Seller.

If work performed or materials furnished by Owner and/or its contractors is found to be defective or of poor quality, Owner shall be responsible to cure defective or poor quality materials and/or workmanship and shall be liable for any cost for that, and no such finding shall be deemed to cause a waiver of any of Owner's obligations under the Agreement or of Seller's rights and remedies under the Agreement for any breach of contract caused thereby.

Owner shall organize quality control team during erection process.

**6. Interconnection:**

Owner shall design, and then assemble, construct and install the Project Interconnection Facilities as part of the Balance of Plant in accordance with the Interconnection Agreement.

Owner shall be solely responsible without limitation for designing, assembling, constructing, installing and testing of the Project Interconnection Facilities with due regard to the Wind Turbine Specifications and Instruction Manual, and coordinating with the transmission line owner regarding the completion of, the interconnection of the Project to the Point of Interconnection (or Delivery Point).

**7. Surface Conditions:**

Owner has inspected the Site and surrounding locations, has reviewed the information and performed such independent inquiry, as Owner deemed necessary, of the Site and surrounding locations, including both the surface and subsurface conditions and the

existence of any pre-existing environmental and hazardous material conditions, to Owner's satisfaction that the Site Plan and Site Conditions meet the intended purposes and the Site is acceptable for performance of the work hereunder.

**EXHIBIT - J-1**

**[FORM OF] MECHANICAL COMPLETION CERTIFICATE**

WIND TURBINE NUMBER \_\_\_\_\_ (the "WTG")

DATE: \_\_\_\_\_

1. Babcock & Brown Power Infrastructure Group US LLC ("Owner") and ("BOP Contractor") have delivered this form on the above date to the duly authorized representatives of Mitsubishi Power Systems Americas, Inc ("Seller"), completed except for signature by Seller. Capitalized terms used, but not otherwise defined, herein have the meanings set forth in Appendix-I ("Definitions") to that certain Wind Turbine Generators Supply Agreement ("Supply Agreement"), by and between Owner and Seller, dated as of March \_\_, 2007, by and between Seller and Owner.
2. Owner and BOP Contractor certify and represent to Seller, with respect to the above referenced WTG, that the following statements are true as of the date set forth above:
  - (a) The WTG has been assembled, erected and installed in accordance with Applicable Law, the Turbine Installation and Erection Manual, the Specifications and the other Requirements;
  - (b) The WTG operates as a single unit and is capable of generating electricity continuously for delivery to the service breaker in the WTG controller;
  - (c) Owner and BOP Contractor have submitted the Mechanical Completion Checklist for the WTG to Seller, which is attached hereto as Attachment 1. All items of the Mechanical Completion Checklist are completely checked and signed-off by Owner and BOP Contractor and the Mechanical Completion Checklist describes the most current condition of this Wind Turbine as of the date set forth above;
  - (d) The Wind Turbine is ready to commence Commissioning in accordance with the Commissioning Procedures;
  - (e) Attached hereto as Attachment 2 is the Punch List Items for WTG assembly, installation and erection, agreed by the duly authorized representative of Owner, Seller and BOP Contractor as of the date set forth above. Owner and BOP Contractor agree to correct any and all items in this list to Seller's reasonable satisfaction prior to the Substantial Completion Date;
  - (f) By countersigning this Mechanical Completion Certificate, Seller does not assume any liability or responsibility with respect to any of Owner's Work; and

*Exhibit-J Mechanical Completion Certificate*

(g) The persons signing below are authorized to submit this form to Seller.

The undersigned hereby certifies that he or she is authorized to sign this certificate for and on behalf of BOP Contractor:

\_\_\_\_\_, as BOP Contractor

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

The undersigned hereby certifies that he or she is authorized to sign this certificate for and on behalf of Owner:

**Babcock & Brown Power Infrastructure Group US LLC**, as Owner

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Pursuant and subject to Section 9.1 of the Supply Agreement and subject to the foregoing, Seller hereby countersigns this Mechanical Completion Certificate for the subject WTG, to indicate agreement that such Mechanical Completion of the subject WTG has been achieved. The undersigned certifies that he or she is authorized to countersign this certificate for and on behalf of Seller.

**Mitsubishi Power Systems Americas, Inc.** as Seller

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

*Exhibit-J Mechanical Completion Certificate*

**Exhibit J-2**

**Mechanical Completion Check List**

A4

PLAN RECORD		REVISIONS		AP-	CHECK-																																															
ISO METRIC SCREW THREADS	NO.	DESCRIPTION (DATE)		PROVED	ED																																															
<p><b>Note:</b></p> <ul style="list-style-type: none"> <li>The drawing number and check item may be revised in accordance with the design progress.</li> </ul>																																																				
<table border="1"> <tr> <td>Customer MPS-LA 1</td> <td>MPS-Sita 1</td> </tr> <tr> <td colspan="2">- I.D.C 5</td> </tr> <tr> <td colspan="2">- 技 1</td> </tr> <tr> <td colspan="2">品保 D.C 2</td> </tr> <tr> <td colspan="2">機品長浜 1</td> </tr> <tr> <td colspan="2">販電(電) 1</td> </tr> <tr> <td colspan="2">計電(電) 1</td> </tr> <tr> <td colspan="2">土建タワー 1</td> </tr> <tr> <td colspan="2">風 建 G 1</td> </tr> <tr> <td colspan="2">火 車 輸</td> </tr> <tr> <td colspan="2">風 輸 G</td> </tr> <tr> <td colspan="2">風 車 BU 1</td> </tr> <tr> <td colspan="2">風 プロ 1</td> </tr> <tr> <td colspan="2">風構設 1</td> </tr> <tr> <td colspan="2">風技タ 1</td> </tr> <tr> <td colspan="2">風技術 1</td> </tr> <tr> <td colspan="2">風荷開 1</td> </tr> <tr> <td colspan="2">風車駆</td> </tr> <tr> <td colspan="2">風発電</td> </tr> <tr> <td colspan="2">長 案 1</td> </tr> <tr> <td colspan="2">控 1</td> </tr> <tr> <td colspan="2">計 2</td> </tr> <tr> <td colspan="2">出國先</td> </tr> </table> <p style="text-align: center;"><b>MITSUBISHI HEAVY INDUSTRIES, LTD. CONFIDENTIAL &amp; PROPRIETARY INFORMATION</b></p> <p>TECHNICAL INFORMATION AND TRADE SECRETS IN THIS DRAWING OR DOCUMENT IS THE PROPERTY OF MITSUBISHI HEAVY INDUSTRIES, LTD.(MHI) AND IS NOT TO BE DISCLOSED, REPRODUCED OR COPIED IN WHOLE OR IN PART, OR USED FOR THE BENEFIT OF ANY ONE OTHER THAN MHI WITHOUT MHI'S PRIOR WRITTEN CONSENT. THIS DOCUMENT OR DRAWING IS PROTECTED BY COPYRIGHT LAW, UNFAIR COMPETITION LAW, CIVIL LAW AND INTERNATIONAL TREATY PROVISIONS AND ANY APPLICABLE LAWS OF JAPAN AND THE COUNTRY IN WHICH IT IS BEING USED.</p>							Customer MPS-LA 1	MPS-Sita 1	- I.D.C 5		- 技 1		品保 D.C 2		機品長浜 1		販電(電) 1		計電(電) 1		土建タワー 1		風 建 G 1		火 車 輸		風 輸 G		風 車 BU 1		風 プロ 1		風構設 1		風技タ 1		風技術 1		風荷開 1		風車駆		風発電		長 案 1		控 1		計 2		出國先	
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A4x32 SHEET(S) WITH COVER																																																				
WIND POWER SYSTEM BUSINESS UNIT		Standard of MWT95/2.4																																																		
APPROVED <i>[Signature]</i>		WIND TURBINE GENERATOR MWT95/2.4 Erection Work Record / Check Sheet for MWT95/2.4																																																		
CHECKED <i>[Signature]</i>																																																				
DRAWN <i>R. M. SAWADA</i> <i>J. Komatsu</i>																																																				
CONFERRED		SCALE ~																																																		
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 <b>MITSUBISHI HEAVY INDUSTRIES, LTD.</b> <b>NAGASAKI SHIPYARD &amp; MACHINERY WORKS</b>																																																				

DRAWN Dec 15<sup>th</sup>, 2006 ISSUED

**ERCTION CHECK SHEET for MWT92/2.4**

Page 7

**- PROJECT COMPANY :**

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**- SUB-CONTRACTOR :**

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**- SELLER (WTG SUPPLIER):**MITSUBISHI POWER SYSTEM AMERICAS, INC ("MPSA")**- DATE / Erection Completion Date:**

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**- LOCATION OF WTG :**

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**- ROTOR HEAD Ser.No. :**

---

**- BLADES Serial No. :**

#1 \_\_\_\_\_ #2 \_\_\_\_\_ #3 \_\_\_\_\_

**- NACELLE Serial No. :**

Yaw \_\_\_\_\_ F \_\_\_\_\_ R \_\_\_\_\_

**- GEAR BOX Serial No. :**

# \_\_\_\_\_

**- GENERATOR Serial No. :**

# \_\_\_\_\_

**- TRANSFORMER Serial No.:**

# \_\_\_\_\_

**- TOWER Serial No. :**

# \_\_\_\_\_

**- GROUND CABINET Serial No.:**

# \_\_\_\_\_

**- ANEMOMETER Serial No.:**

#1 \_\_\_\_\_ #2 \_\_\_\_\_

**- ATTENDEES for Mechanical Completion Walk Through**

The following persons attended the joint inspection (walk through) for mechanical completion check.

**Copy****Operator/  
Maintenance  
manual****Manufacturer  
Building  
Authority****Expert  
Witness**Constructor : 

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Customer : 

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Seller : 

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Date of the Walk through: 

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